

MADE
IN THE USA

FEDERAL 

2019

IT'S **FEDERAL**  SEASON

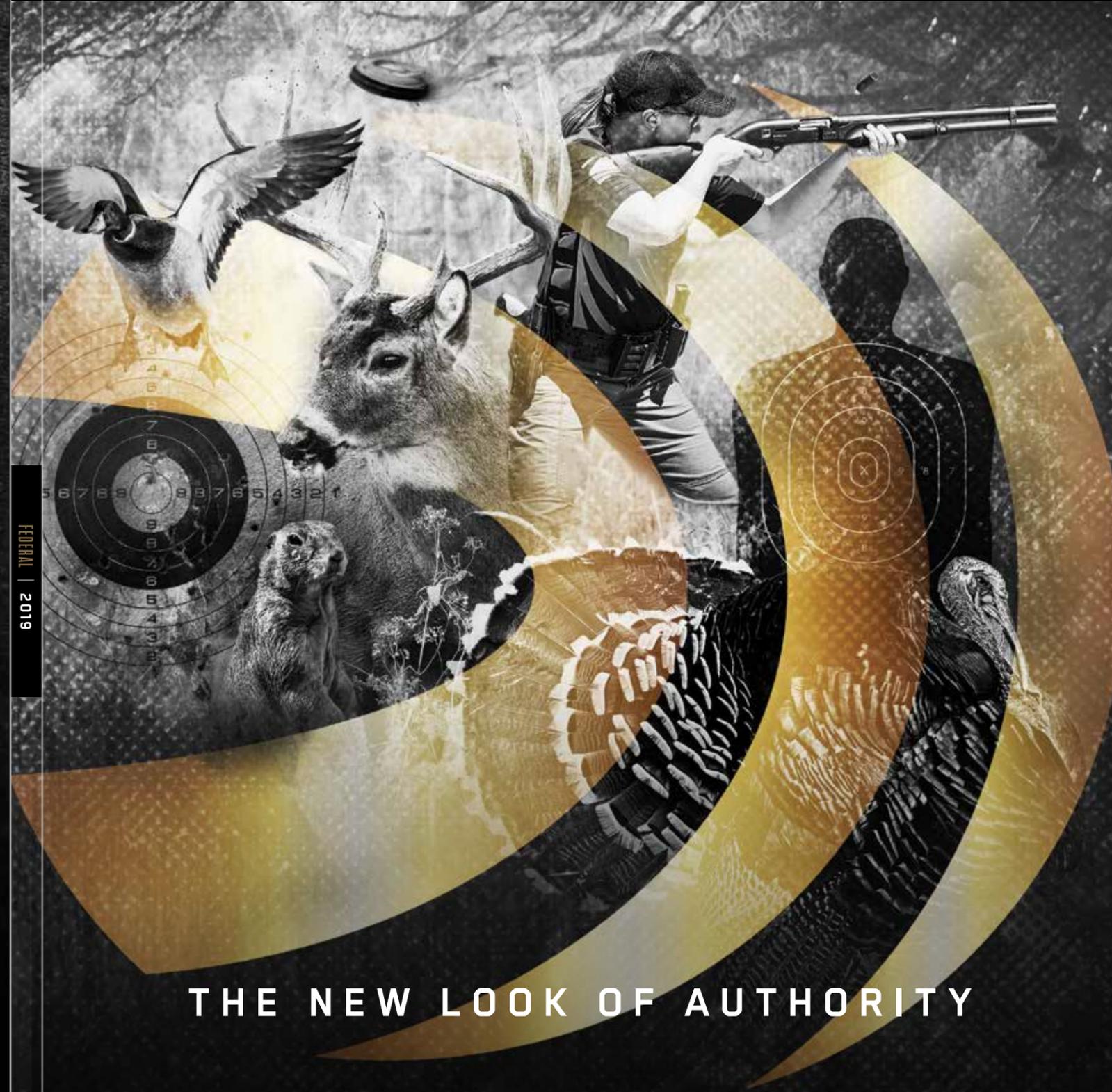
THIS IS WHAT YOU LIVE FOR



FEDERALPREMIUM.COM

THIS SEASON REACH FOR THE ABSOLUTE AUTHORITY IN WHITETAIL AMMUNITION AT FEDERALPREMIUM.COM

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FEDERAL | 2019

THE NEW LOOK OF AUTHORITY



THE NEW LOOK OF AUTHORITY

WE ARE FEDERAL, AND WE'RE BETTER THAN EVER

The world's leading ammunition manufacturer is getting back to its roots. Federal® is launching a new look and logo—all to celebrate our core. Premium® products will continue to bear that name, but positioned as they were always meant to be—an exclusive category of the best ammunition available.

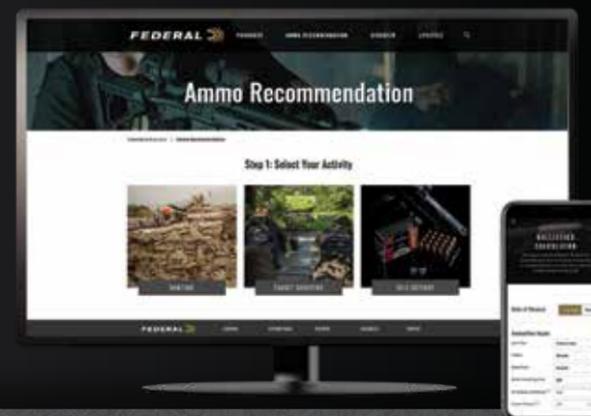
We've also launched new packaging to make Federal easier to find on the shelf. Beyond the bold design, the most important attributes of the product, such as the caliber or shot size, are clearly, consistently communicated across all Federal product families.

Like always, we've introduced a host of new products for everything from hunting to long range shooting and self-defense. It's all waiting for you in 2019.

Thank you for shooting Federal.

NEW WEBSITE & APP

Experience all that Federal offers through our redesigned website and mobile app. The site is easier to use and loaded with the shooting content you crave, and the app's Ballistics Calculator, Ammo Recommendation, Where to Buy, and Where to Shoot tools give you everything needed to shoot better. Learn more at federalpremium.com.



CONNECT, SHOOT, SHARE

We're connecting with thousands of fans every day through social media. Share your passion for all things shooting on Facebook, YouTube, Twitter and Instagram.

facebook.com/federalpremiumammo

youtube.com/federalpremiumammo

twitter.com/federalpremium

instagram.com/federalpremium



RATINGS & REVIEWS

Your shooting is too precious for guesswork. So we make it easy for you to review our ammunition online and check out the ratings of others for every product in our line. Go to federalpremium.com.



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2019 NEW PRODUCTS

TURNING VISION INTO REALITY

True advancement happens when one has the vision to recognize a need and the skill to develop a way to meet it. At Federal® we have both. This year, we've continued our long tradition of craftsmanship and innovation, creating all-new products poised to change the face of shooting. Federal Premium® rifle products continue to be the best options in every category, thanks to the most advanced bullets from across the industry, loaded to our tightest specifications.

BLACK CLOUD TSS

Tear ducks and geese down from the sky. Black Cloud® TSS blends proven FLITESTOPPER® Steel pellets and 18 g/cc Tungsten Super Shot that's 56 percent denser than lead and more than double the density of steel.

See page 62.



TOP GUN SPORTING

Get legendary Top Gun® consistency in loads specifically designed for sporting clays. They push their payloads fast to shorten leads, yet reduce felt recoil to allow for quicker follow-up shots.

See page 94.



UPLAND STEEL

Meet the perfect choice for doves and other light upland game in areas that require the use of non-lead shot. Federal Upland Steel serves up the patterns and power hunters need for hard-to-hit birds at a price that keeps them shooting all day.

See page 93.



450 BUSHMASTER

Legal in more slug-only areas and offering enhanced range, accuracy and power over other straight-walled rifle cartridges and sabots, the 450 Bushmaster is becoming a new favorite of deer, hog and bear hunters. Now the hot cartridge is available in three of the best loads for hunters—Federal Fusion®, Power-Shok® and Non-Typical™.

See page 86, 89 and 91.



COMPONENT BULLETS

We're proud to expand our line of component bullets with Edge TLR®, Fusion rifle and Hydra-Shok® handgun. All let shooters create their own custom handloads with bullet designs that changed the industry.

See page 82-85.



BERGER HYBRID HUNTER

The handloader's long-range hunting bullet, now from your most trusted factory ammunition. Federal Premium® Berger® Hybrid Hunter bullets offer extremely high ballistic coefficients and weights that have been fine-tuned to provide exceptional accuracy.

See page 18.



HST 10MM AUTO

The ultimate self-defense bullet and cartridge have finally come together in the new 10mm Auto HST®. Full-power loading makes the most of the HST bullet design, providing large, consistent expansion, optimum penetration and superior terminal performance.

See page 44.



BARNES TRIPLE-SHOCK X

The Barnes Triple-Shock X is back. Its proven all-copper hollow point groups tightly at long range and delivers consistent weight retention for deep penetration.

See page 16.



224 VALKYRIE

Introducing three new loads that stretch the 224 Valkyrie cartridge's capabilities even further: 80.5-grain Gold Medal® Berger Hybrid, 60-grain Hornady® V-Max® and 78-grain Barnes® Triple-Shock® X.

See page 6.



SYNTECH

We've taken Syntech® TSJ® technology and applied it to three new purpose-built loads: Syntech PCC™, Syntech Training™ and Syntech Defense™. All use an exclusive polymer jacket to eliminate metal fouling and drastically reduce damaging barrel heat and friction.

See page 98.



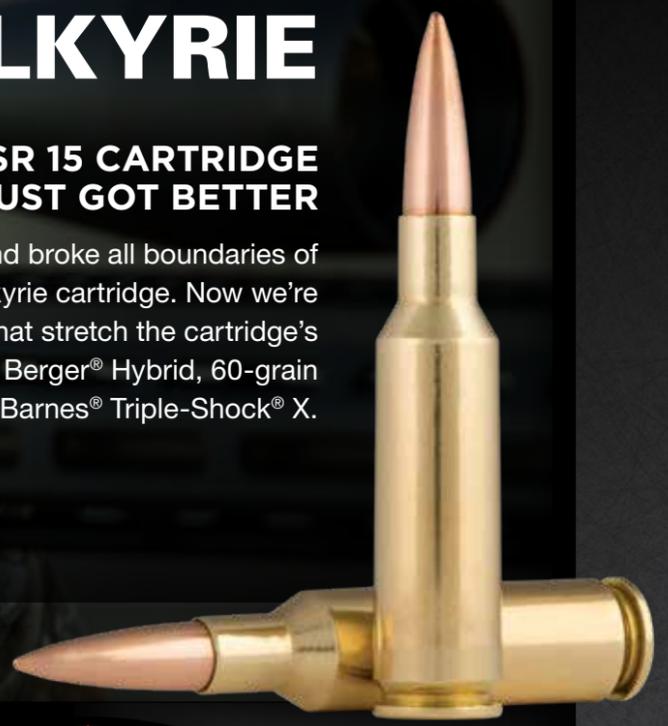
NEW!

224 VALKYRIE

224 VALKYRIE

THE WORLD'S BEST MSR 15 CARTRIDGE JUST GOT BETTER

In 2018, we transformed the MSR 15 platform and broke all boundaries of ballistic performance by introducing the 224 Valkyrie cartridge. Now we're giving hunters and shooters three new loads that stretch the cartridge's capabilities even further: 80.5-grain Gold Medal® Berger® Hybrid, 60-grain Hornady® V-Max® and 78-grain Barnes® Triple-Shock® X.



NEW & IMPROVED MATCHKING

Sierra has made the 90-grain MatchKing an even better fit for 224 Valkyrie, giving the bullet a thicker jacket that gets peak precision and consistency from the cartridge.

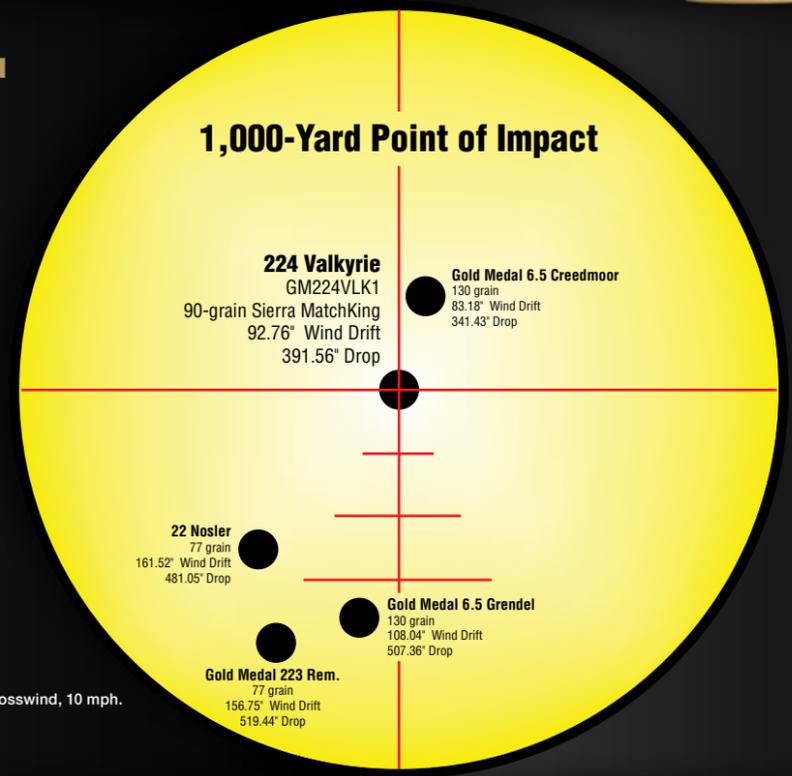


THE HARDWARE TO PROVE IT

The 224 Valkyrie's flat trajectories, low recoil and extreme long-range capabilities have not only resulted in millions of rounds sold, they've earned the cartridge accolades including the NASGW Caliber Award, Ballistic's Best Magazine's Best New Cartridge Award and Big Rock Sport East's Best New Ammunition Award.

FLATTENS THE COMPETITION AT 1,000 YARDS

Despite its popularity and versatility, the MSR 15 has never offered practical 1,000-yard performance. That's all changed thanks to the heavier bullets and extremely high ballistic coefficients of 224 Valkyrie. Loaded with the 90-grain Gold Medal Sierra MatchKing, the cartridge offers as much as 127.88 inches less drop and 68.76 inches less wind drift at 1,000 yards when compared to existing MSR 15 cartridges.



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AVAILABLE LOADS

LOAD NO.	BULLET	CALIBER	GR.
NEW V224VLKVM60	HORNADY V-MAX	224 VALKYRIE	60
P224VLKBT1	NOSLER BALLISTIC TIP	224 VALKYRIE	60
AE224VLK1	AMERICAN EAGLE® FMJ	224 VALKYRIE	75

LOAD NO.	BULLET	CALIBER	GR.
NEW P224VLKBTXS1	BARNES TSX	224 VALKYRIE	78
NEW GM224VLKBH2	GOLD MEDAL BERGER HYBRID	224 VALKYRIE	80.5
GM224VLK1	GOLD MEDAL SIERRA MATCHKING®	224 VALKYRIE	90
F224VLKMSR1	FUSION MSR	224 VALKYRIE	90

GET FULL BALLISTICS ON PAGES 94-107.

EDGE TLR®

THE ONLY ONE WITHOUT A DOUBT

Edge TLR takes the features of high ballistic coefficient competition bullets and combines them with the industry's finest bonding technology to give hunters the best of both worlds. It uses the exclusive hollow-core Slipstream™ polymer tip to initiate expansion at extreme distances, while at close range, the bullet's copper shank and bonded lead core retain weight for consistent, lethal penetration. This means unrivaled terminal performance over the largest velocity window. Combined with the highest ballistic coefficients in its class, Edge TLR is the ultimate hunting bullet.



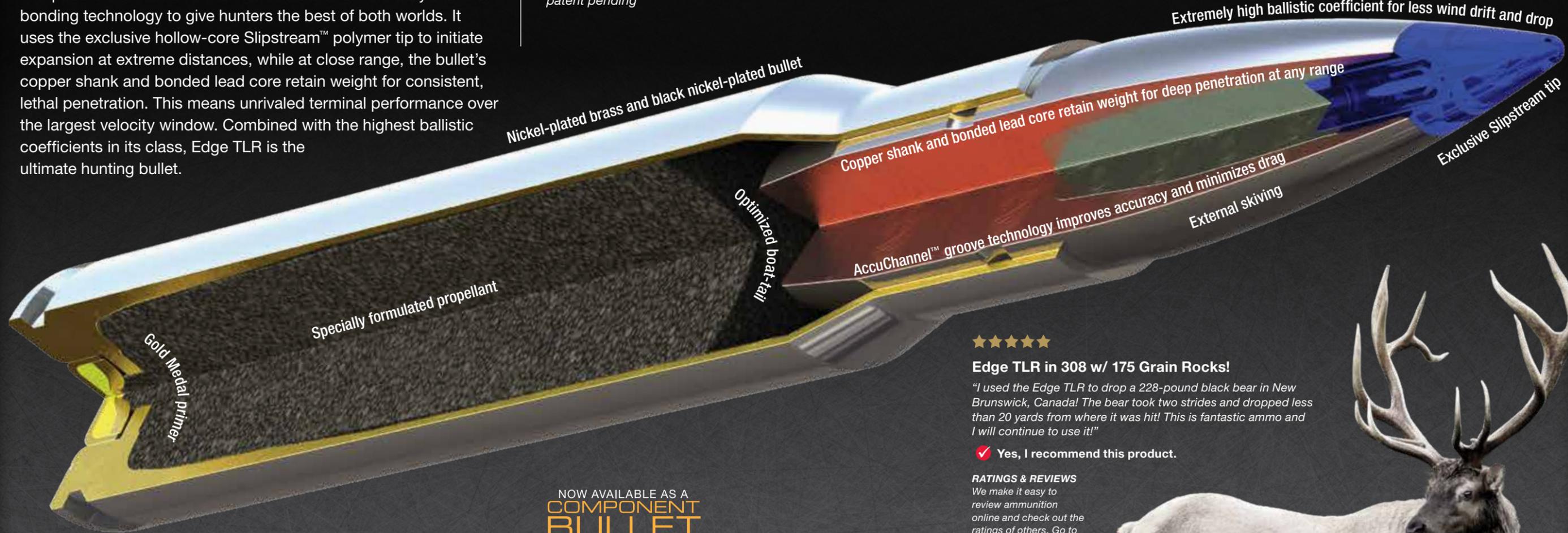
TECHNOLOGIES

- Slipstream Polymer Tip*
- Most Heat-Resistant Tip Material
- Extremely High Ballistic Coefficients
- AccuChannel Groove Technology
- Specially Formulated Propellant
- Gold Medal® Match Primer
- Nickel-Plated Brass
- *patent pending

NO.1 IN RIFLE AMMUNITION

NEW!

Expansion Redefined: Lethal extreme-range bullet performance doesn't look like the 2x expansion hunters see at conventional distances—it's not supposed to. With petals that open instantly and peel back uniformly every time, the Edge TLR transfers more energy to the animal on impact and carves straight, deadly wound channels.



NOW AVAILABLE AS A
COMPONENT BULLET
See page 82



Edge TLR in 308 w/ 175 Grain Rocks!

"I used the Edge TLR to drop a 228-pound black bear in New Brunswick, Canada! The bear took two strides and dropped less than 20 yards from where it was hit! This is fantastic ammo and I will continue to use it!"

✓ Yes, I recommend this product.

RATINGS & REVIEWS

We make it easy to review ammunition online and check out the ratings of others. Go to federalpremium.com.

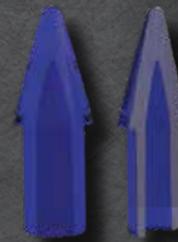
1,200-YARD PERFORMANCE

The Edge TLR's Slipstream polymer tip ensures proper expansion during low-velocity impact at extreme distances. In this ballistics gel block, shot at 1,200-yard velocity with P300WETLR200, you can see where the Slipstream tip has initiated expansion and separated from the bullet immediately after entering the block, exactly as designed.



Penetration: Deep
Weight Retention: Maximum

Expansion: Controlled
Range: Maximum



SLIPSTREAM'S SECRET

The Slipstream tip provides a perfectly aerodynamic meplat, yet initiates expansion at 200 fps lower velocities than comparable bullets. The secret is its hollow core, which is exposed when the tip breaks off on impact, allowing target material into the bullet nose.



BIG GAME • MEDIUM GAME • EXTREME RANGE

ALSO TRY

TROPHY BONDED TIP
See page 10

Combine bonded construction and a bone-crushing shank with a boat-tail design and polymer tip.



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AVAILABLE LOADS

LOAD NO.	CALIBER	GR.	G1 BC	G7 BC
NEW P65CRDETLR1	6.5 CREEDMOOR	130	0.545	0.280
P270ETLR1	270 WIN.	136	0.508	0.255
P270WSMETLR1	270 WIN. SHORT MAGNUM	136	0.508	0.255

LOAD NO.	CALIBER	GR.	G1 BC	G7 BC
NEW P280AIETLR1	280 ACKLEY IMPROVED	155	0.610	0.313
P7RETLR1	7MM REM. MAGNUM	155	0.610	0.313

LOAD NO.	CALIBER	GR.	G1 BC	G7 BC
P308ETLR175	308 WIN.	175	0.536	0.266
P3006ETLR175	30-06 SPRING.	175	0.536	0.266

LOAD NO.	CALIBER	GR.	G1 BC	G7 BC
P300WETLR200	300 WIN. MAGNUM	200	0.625	0.312
P300WSMETLR200	300 WIN. SHORT MAGNUM	200	0.625	0.312

GET FULL BALLISTICS ON PAGES 94-107.

TROPHY BONDED[®] TIP

SURGICAL ACCURACY. TERMINAL RESULTS.

The Trophy Bonded Tip combines bonded construction and a bone-crushing solid copper shank with a boat-tail design and polymer tip that tighten groups. The resulting toughness and accuracy make it a perfect choice for the full spectrum of big game at any practical range.



TECHNOLOGIES

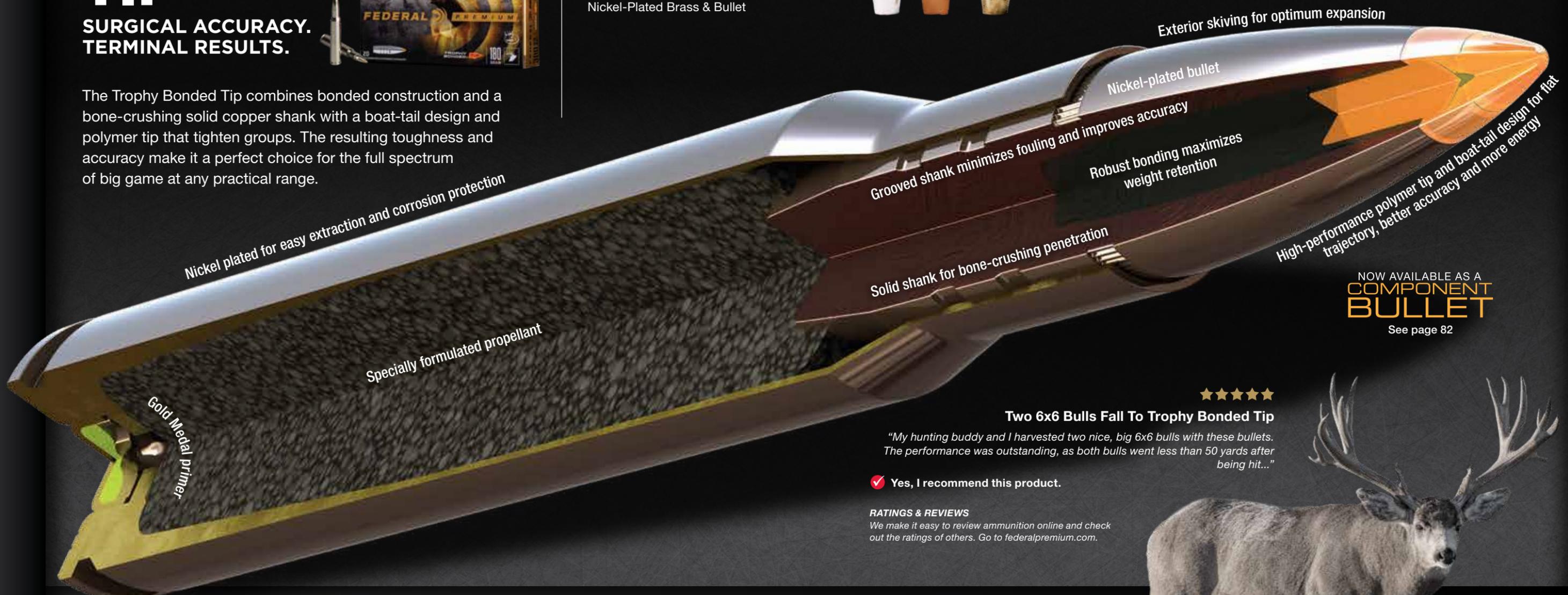
- Most Heat-Resistant Polymer Tip
- Copper Shank And Robust Bonded Construction
- Skived Hollow Point
- Gold Medal[®] Primer
- Specially Formulated Propellant
- Nickel-Plated Brass & Bullet

NO. 1 IN RIFLE AMMUNITION



TOUGHNESS MEETS ACCURACY

Some heavily built bullets trade accuracy for toughness. Not Trophy Bonded Tip. Its solid copper core and bonded jacket provide the deep penetration and terminal performance of a heavy-duty bullet, while its grooved shank, polymer tip and boat-tail design give it the accuracy of a match bullet.



Nickel plated for easy extraction and corrosion protection

Specially formulated propellant

Gold Medal primer

Exterior skiving for optimum expansion

Nickel-plated bullet

Grooved shank minimizes fouling and improves accuracy

Robust bonding maximizes weight retention

High-performance polymer tip and boat-tail design for flat trajectory, better accuracy and more energy

Solid shank for bone-crushing penetration

NOW AVAILABLE AS A
COMPONENT BULLET
See page 82



Two 6x6 Bulls Fall To Trophy Bonded Tip

"My hunting buddy and I harvested two nice, big 6x6 bulls with these bullets. The performance was outstanding, as both bulls went less than 50 yards after being hit..."

✓ Yes, I recommend this product.

RATINGS & REVIEWS

We make it easy to review ammunition online and check out the ratings of others. Go to federalpremium.com.

PRESERVES WEIGHT, DESTROYS EVERYTHING ELSE

The bonded construction of the Trophy Bonded Tip ensures 90-plus-percent weight retention. Gelatin shot with 165-grain 30-06 Spring, Trophy Bonded Tip (P3006TT2) at 100 yards.



Penetration: Deep
Weight Retention: Maximum

Expansion: High/Controlled
Range: Long

PARTNER SPOTLIGHT: Realtree

Federal[®] is excited to partner with Realtree[®] and its all new Edge[™] and Timber[™] patterns. Learn more about what they can do at realtree.com.



LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.
P223TT3	223 REM.	62	P270WSMTT3	270 WIN. SHORT MAGNUM	140	P7RTT1	7MM REM. MAGNUM	160	P308TT1	308 WIN.	180	P300WTT1	300 WIN. MAGNUM	180	P338TT2	338 WIN. MAGNUM	200
P270TT1	270 WIN.	130	P708TT2	7MM-08 REM.	140	P7WSMTT2	7MM WIN. SHORT MAGNUM	140	P3006TT2	30-06 SPRING.	165	P300WSMTT2	300 WIN. SHORT MAGNUM	165			
P270TT3	270 WIN.	140	P280TT2	280 REM.	140	P7WSMTT1	7MM WIN. SHORT MAGNUM	160	P3006TT1	30-06 SPRING.	180	P300WSMTT1	300 WIN. SHORT MAGNUM	180			
P270WSMTT1	270 WIN. SHORT MAGNUM	130	P7RTT2	7MM REM. MAGNUM	140	P308TT2	308 WIN.	165	P300WTT2	300 WIN. MAGNUM	165	P338FTT2	338 FEDERAL	200			



TROPHY[®] COPPER

COMPLETE PERFORMANCE. TOTAL COPPER.



Deep penetration through even the toughest hide and bone. Perfect, consistent expansion at close or long range. Up to 99 percent weight retention and match-grade accuracy. Trophy Copper offers everything you demand in a big game cartridge—all with a copper, polymer-tipped bullet.

TECHNOLOGIES

- Lead-Free Copper Bullet
- Polymer Tip
- Grooved Shank
- Gold Medal[®] Primer
- Specially Formulated Propellant
- Nickel-Plated Brass

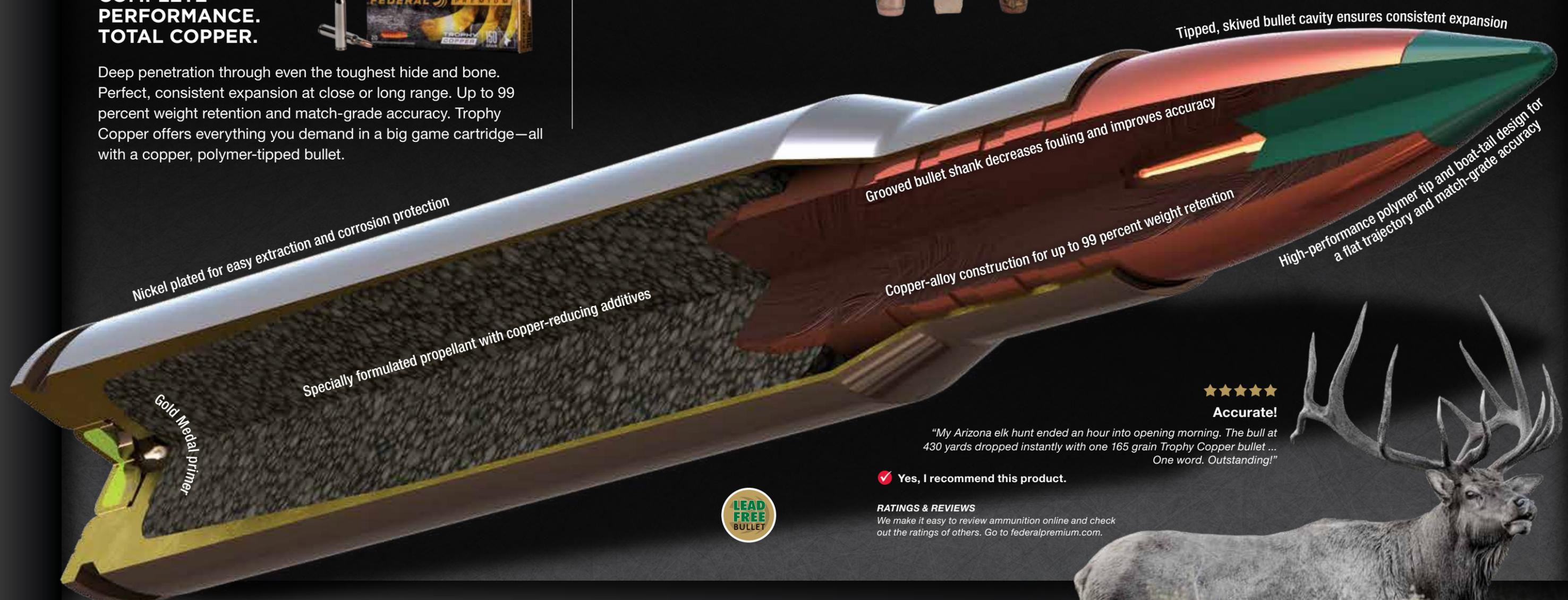
NO. 1 IN RIFLE AMMUNITION



ONE PIECE, ALL PERFORMANCE

Thanks to skiving in the nose, the monolithic Trophy Copper bullet expands reliably across a wide range of velocities and through both tough big game and lightly built medium game. This yields a larger expanded diameter than many copper bullets, with superb low-velocity terminal performance.

NEW!



★★★★★
Accurate!

"My Arizona elk hunt ended an hour into opening morning. The bull at 430 yards dropped instantly with one 165 grain Trophy Copper bullet ... One word. Outstanding!"

✓ **Yes, I recommend this product.**

RATINGS & REVIEWS
We make it easy to review ammunition online and check out the ratings of others. Go to federalpremium.com.



PENETRATION, POWER, PERFORMANCE

Weight retention as high as 99 percent allows the Trophy Copper bullet to penetrate deeply, while still expanding aggressively. Gelatin shot with 165-grain 30-06 Spring. Trophy Copper (P3006TC2) at 100 yards.



Penetration: Deep
Weight Retention: Maximum
Expansion: Moderate/Controlled
Range: Long



PARTNER SPOTLIGHT: MeatEater

Federal[®] is an enthusiastic partner with "MeatEater," the first hunting television series featured on Netflix. Its host, Steven Rinella, is an outdoorsman, conservationist, writer and television personality who is renowned for his field-to-table lifestyle. Find out more at themeateater.com.



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AVAILABLE LOADS

LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.
NEW P223TC1	223 REM	55	P270TC1	270 WIN.	130	P7RTC2	7MM REM.	140	P308TC3	308 WIN.	150	P300WTC2	300 WIN. MAGNUM	165	P338FTC2	338 FEDERAL	200
P243TC1	243 WIN.	85	P270WSMTC1	270 WIN. SHORT MAGNUM	130	P7RTC3	7MM REM.	150	P308TC2	308 WIN.	150	P300WTC1	300 WIN. MAGNUM	180	P338TC1	338 WIN. MAGNUM	225
P2506TC1	25-06 REM.	100	P708TC2	7MM-08 REM.	140	P7WSMTC3	7MM WIN. SHORT MAGNUM	150	P3006TC2	30-06 SPRING.	165	P300WSMTC2	300 WIN. SHORT MAGNUM	165	NEW P338LTC1	338 LAPUA MAG	250
P65CRDTC1	6.5 CREEDMOOR	120	P280TC2	280 REM.	140	P3030TC1	30-30 WIN.	150	P3006TC1	30-06 SPRING.	180	P300WSMTC1	300 WIN. SHORT MAGNUM	180			

BIG GAME • MEDIUM GAME • LONG RANGE

ALSO TRY
BARNES[®] TSX
See page 16

This accurate, all-copper hollow point retains nearly 100 percent of its weight on impact to penetrate deep.

GET FULL BALLISTICS ON PAGES 94-107.

ALSO TRY

NOSLER
BALLISTIC TIP®
See page 22

Put medium game down fast. Nosler Ballistic Tip loads provide peak energy downrange.



GET FULL
BALLISTICS
ON PAGES
94-107.

NOSLER® ACCUBOND®

BACK AND BETTER THAN EVER

These popular loads are back. The proven Nosler AccuBond bullet design pairs a precision polymer tip with a highly concentric jacket bonded to a lead core. The result is forgiving accuracy, fast expansion, moderate weight retention and deep penetration at long range.



LONG-RANGE EXPANSION

With a large lead core bonded to a tapered jacket, the Nosler AccuBond provides fast, controlled expansion.

PARTNER SPOTLIGHT: National Deer Alliance

Federal® Ammunition is a founding sponsor of the National Deer Alliance (NDA). The organization is dedicated to uniting deer hunters, managers and enthusiasts to bring about positive change for both deer and deer hunting. Lean more and join the effort at nationaldeeralliance.com.



TECHNOLOGIES

- Precision Polymer Tip
- Bonded Construction
- Specially Formulated Propellant
- Gold Medal Primer
- Nickel-Plated Brass

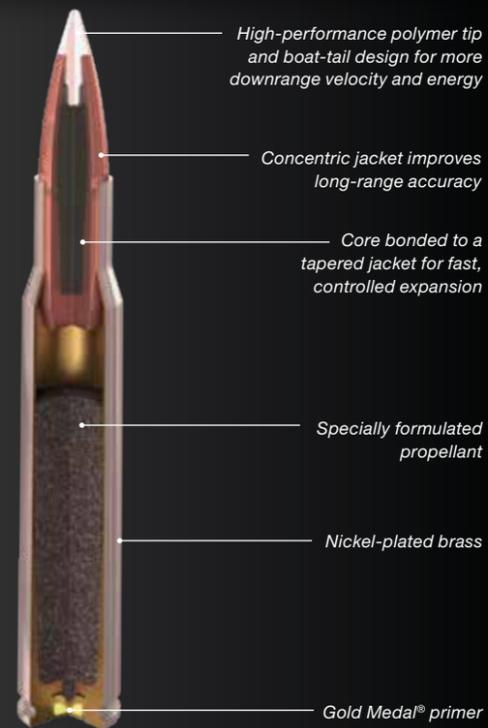
NO. 1 IN RIFLE AMMUNITION DEPTH CHARGE

Moderate penetration depths make the Nosler AccuBond ideal for medium and big game at long range. Gelatin shot with 180-grain 30-06 Spring. AccuBond (P3006A1) at 100 yards.



Penetration: Moderate
Weight Retention: Moderate

Expansion: High/Controlled
Range: Long



High-performance polymer tip and boat-tail design for more downrange velocity and energy

Concentric jacket improves long-range accuracy

Core bonded to a tapered jacket for fast, controlled expansion

Specially formulated propellant

Nickel-plated brass

Gold Medal® primer



LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.
P243A1	243 WIN.	90	P270A1	270 WIN.	140	P7RA1	7MM REM. MAGNUM	160	P3006A3	30-06 SPRG.	150	P300RUMA1	300 REM. ULTRA MAGNUM	180
P2506A1	25-06 REM.	110	P270WSMA1	270 WIN. SHORT MAGNUM	130	P7WSMA1	7MM WIN. SHORT MAGNUM	160	P3006A2	30-06 SPRG.	165	P300WA1	300 WIN. MAGNUM	180
P65CRDA1	6.5 CREEDMOOR	140	P708A1	7MM-08 WIN.	150	P308A1	308 WIN.	165	P3006A1	30-06 SPRG.	180	P300WSMA1	300 WIN. SHORT MAGNUM	180
												P338A1	338 WIN. MAGNUM	225
												P338LMA1	338 LAPUA MAGNUM	300

AVAILABLE
LOADS

NEW!

BARNES® TRIPLE-SHOCK® X

RETURN OF THE COPPER KING

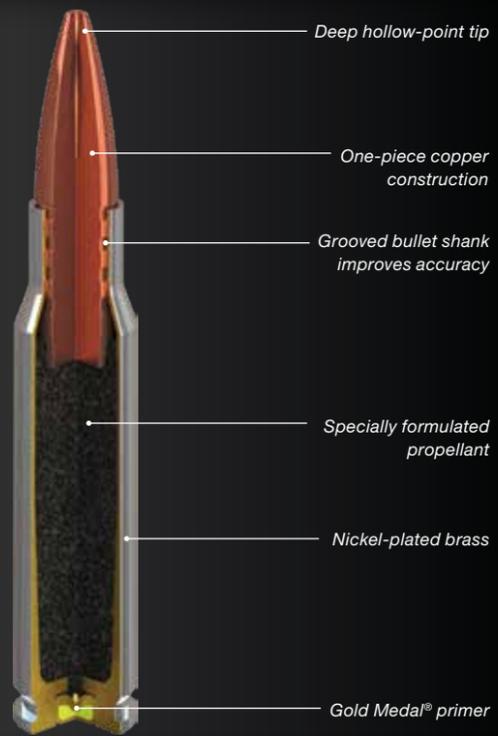
We've brought back the immensely popular Barnes Triple-Shock X. This proven all-copper hollow point groups tightly at long range and delivers consistent, deep penetration. The monolithic design retains nearly 100 percent of its weight on impact to penetrate deep, and its grooved shank minimizes barrel fouling and improves accuracy.



BIG GAME • MEDIUM GAME • LONG RANGE

ALSO TRY
TROPHY® COPPER
See page 12

Get up to 99 percent weight retention and match-grade accuracy—all with a copper, polymer-tipped bullet.



NO. 1 IN RIFLE AMMUNITION

EMPTY NOSE, FULL TAGS

A deep hollow point cavity ensures the Barnes TSX expands to lethal diameters at any practical range. Gelatin shot with 180-grain 30-06 Spring. Barnes TSX (P3006AE) at 100 yards.



Penetration: Deep
Weight Retention: Maximum
Expansion: Moderate/Controlled
Range: Long



CLEAN & MEAN

The TSX uses a monolithic all-copper design to hang onto nearly all of its mass on impact. Its grooving cuts down on fouling and produces better accuracy across the full spectrum of rifles.

PARTNER SPOTLIGHT: Rocky Mountain Elk Foundation

We proudly support the Rocky Mountain Elk Foundation with an on-box royalty program—16 loads feature the RMEF logo. A portion of the proceeds from every box sold goes to support the organization's mission to protect elk and more than 6.5 million acres of their habitat. Visit rmef.org.



TECHNOLOGIES

- All-Copper Bullet
- Shank Grooving
- Nickel-Plated Brass
- Specially Formulated Propellant
- Gold Medal® Primer



AVAILABLE LOADS

LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.
P223S	223 REM	55	P2506H	25-06 REM	115	P270WSMD	270 WSM	130	P308H	308 WIN	165	P3006AE	30-06 SPRG	180	P300WSMF	300 WSM	180
P224VLKBTX1	224 VALKYRIE	78	P65CRDBTSX1	6.5 CREEDMOOR	130	P708C	7MM-08 REM	140	P3030G	30-30 WIN	150	P7RN	7MM REM MAG	160	P300WR	300 WIN MAG	165
P243K	243 WIN	85	P270L	270 WIN	130	P308V	308 WIN	150	P3006AF	30-06 SPRG	165	P300WSMG	300 WSM	165	P300WP	300 WIN MAG	180

GET FULL BALLISTICS ON PAGES 94-107.

NEW!

BERGER® HYBRID HUNTER

THE LONG-RANGE LEADER

Blend the profile of a low-drag, high BC match bullet with a traditional hunting projectile design and you're ready to take on almost anything that walks on four legs. Federal Premium® Berger Hybrid Hunter bullet weights have been fine-tuned to provide exceptional accuracy.



BIG GAME • MEDIUM GAME • LONG RANGE

ALSO TRY
EDGE TLR™
See page 8

Get pinpoint accuracy at extreme long range, effective weight retention at close range, and reliable, lethal expansion from the muzzle to more than 900 yards.

NO. 1 IN RIFLE AMMUNITION

HARD HITTING HYBRID

Fueled by high ballistic coefficients, the Hybrid Hunter's unique bullet design results in fast expansion and massive energy transfer on impact. Gelatin shot with 168-grain 30-06 Spring. Berger Hybrid Hunter (P3006BCH1) at 100 yards.



Penetration: Moderate
Weight Retention: Moderate

Expansion: Fast
Range: Long



WEIGHT A MINUTE

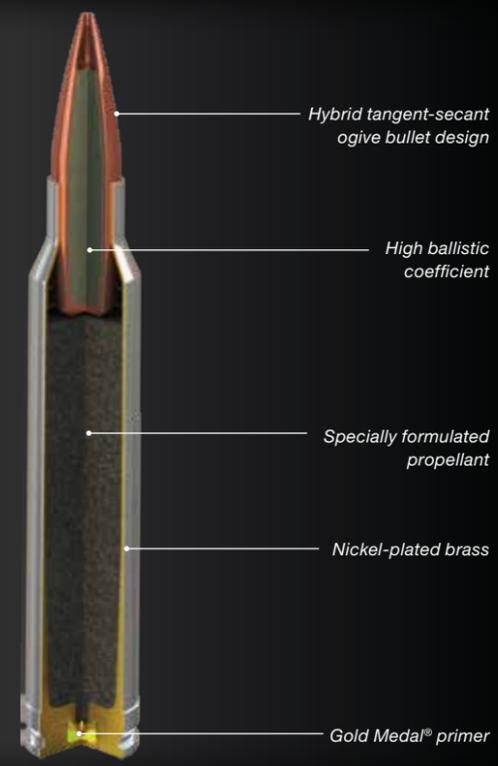
Berger Hybrid Hunter bullet weights are carefully selected to provide exceptional accuracy through the widest range of rifles.

TECHNOLOGIES

- Hybrid Tangent-Secant Ogive
- Gold Medal® Primer
- Specially Formulated Propellant
- Nickel-Plated Brass

PARTNER SPOTLIGHT: Mule Deer Foundation

Federal® is a proud partner of the Mule Deer Foundation. The organization leads efforts to conserve this icon of the American West, protect and enhance its habitat, increase hunter access and minimize threats to mule deer and black-tail populations. Get involved today at muledeer.org.



Hybrid tangent-secant ogive bullet design

High ballistic coefficient

Specially formulated propellant

Nickel-plated brass

Gold Medal® primer

LOAD NO.	CALIBER	GR.
P243BCH1	243 WIN	95
P65CRDBCH1	6.5 CREEDMOOR	135

LOAD NO.	CALIBER	GR.
P270BCH1	270 WIN	140
P270WSMBCH1	270 WSM	140

LOAD NO.	CALIBER	GR.
P7RBCH1	7MM REM MAG	168
P280AIBCH1	280 ACKLEY IMPROVED	168

LOAD NO.	CALIBER	GR.
P308BCH1	308 WIN	168
P3006BCH1	30-06 SPRG	168

LOAD NO.	CALIBER	GR.
P300WBCH1	300 WIN	185
P300WSMBCH1	300 WSM	185



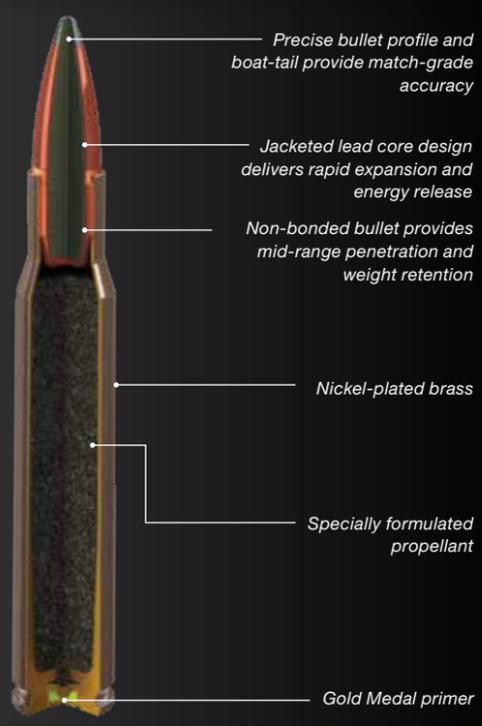
SIERRA® GAMEKING®

ACCURATE BY DESIGN

The Sierra GameKing's boat-tail design tightens groups and flattens its trajectory, while the jacketed lead core delivers rapid expansion and energy release. It's an excellent long-range bullet choice for virtually any medium game species in North America.



ALSO TRY
NOSLER®
BALLISTIC TIP®
See page 22



NO. 1 IN RIFLE AMMUNITION LONG-RANGE PUNCH

Sierra GameKing's soft lead core and thin jacket construction provide ultra-fast expansion and moderate penetration. Gelatin shot with 165-grain 30-06 Spring. Sierra GameKing (P3006D) at 100 yards.



Penetration: Moderate
Weight Retention: Moderate

Expansion: High
Range: Long



ONE DEADLY MUSHROOM

The Sierra GameKing's profile and jacket design result in consistent expansion on medium game.



Fantastic Ammunition

"Have been using this ammo for 40+ years ... Have never had an animal run more than 40 yards after being shot and the majority drop in their tracks. Ranges have been from 40 to 350 yards."

✓ Yes, I recommend this product.

RATINGS & REVIEWS
We make it easy to review ammunition online and check out the ratings of others. Go to federalpremium.com.

TECHNOLOGIES

- Concentric Jacket
- Gold Medal® Primer
- Specially Formulated Propellant
- Nickel-Plated Brass



Put medium game down fast. Nosler Ballistic Tip loads provide peak downrange energy.

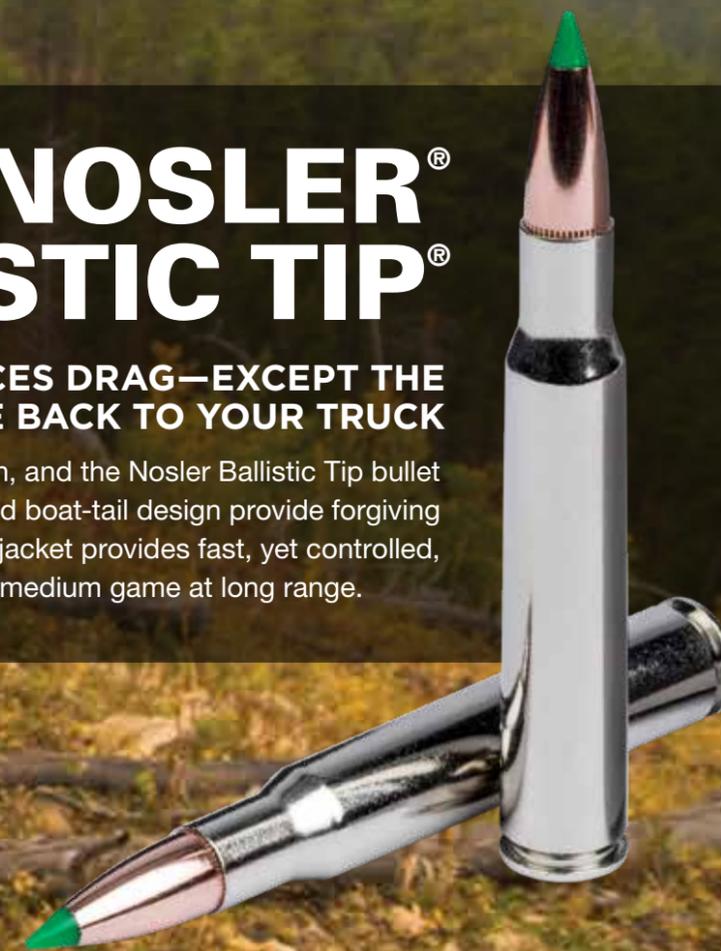
LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.
P243C	243 WIN.	100	P260A	260 WIN.	140	P270C	270 WIN.	150	P7RE	7MM REM. MAGNUM	165	P308C	308 WIN.	165
P2506C	25-06 REM.	117	P270D	270 WIN.	130	P7RD	7MM REM. MAGNUM	150	P730A	7-30 WATERS	120	P3006G	30-06 SPRING.	150



NOSLER® BALLISTIC TIP®

REDUCES DRAG—EXCEPT THE ONE BACK TO YOUR TRUCK

Hunters demand precision, and the Nosler Ballistic Tip bullet delivers. Its polymer tip and boat-tail design provide forgiving accuracy while the tapered jacket provides fast, yet controlled, expansion. It's perfect for medium game at long range.



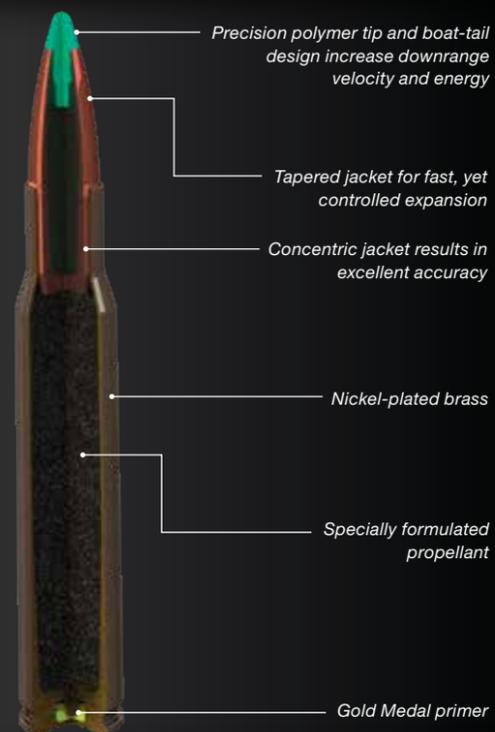
ALSO TRY

SIERRA® GAMEKING®
See page 20

A high ballistic coefficient and boat-tail flatten trajectories, while the jacketed core delivers rapid expansion.



23



NO. 1 IN RIFLE AMMUNITION

VITAL SIGNS

Nosler Ballistic Tip rounds fly flat, resist wind drift and provide rapid, yet controlled, expansion when they hit their target, obliterating vitals. Gelatin shot with 165-grain 30-06 Spring. Nosler Ballistic Tip Hunting (P3006Q) at 100 yards.



Penetration: Low/Moderate
Weight Retention: Low/Moderate

Expansion: Rapid
Range: Long

CONTROLLED CHAOS

The Nosler Ballistic Tip's tapered jacket allows fast, devastating expansion, while providing enough integrity to penetrate vitals.



Great Whitetail Bullet

"This is by far the best bullet I have ever used for whitetails. The bullet offers excellent penetration, a fantastic blood trail, and is very accurate..."

Yes, I recommend this product.

RATINGS & REVIEWS

We make it easy to review ammunition online and check out the ratings of others. Go to federalpremium.com.

TECHNOLOGIES

- Tapered Jacket
- Full-Length Lead Core
- Gold Medal® Primer
- Specially Formulated Propellant
- Nickel-Plated Brass



22

AVAILABLE LOADS

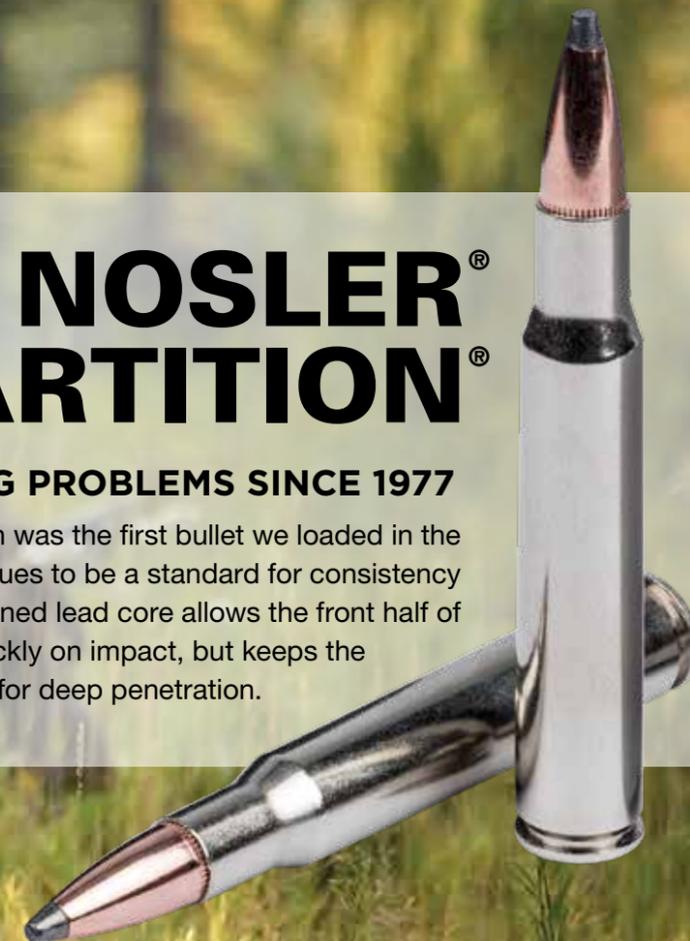
LOAD NO. P243J	CALIBER 243 WIN.	GR. 95	LOAD NO. P260B	CALIBER 260 REM.	GR. 120	LOAD NO. P270WSMB	CALIBER 270 WIN. SHORT MAGNUM	GR. 130	LOAD NO. P7RH	CALIBER 7MM REM. MAGNUM	GR. 150	LOAD NO. P308F	CALIBER 308 WIN.	GR. 150	LOAD NO. P3006Q	CALIBER 30-06 SPRING.	GR. 165	LOAD NO. P270F	CALIBER 270 WIN.	GR. 130	LOAD NO. P708B	CALIBER 7MM-08 REM.	GR. 140	LOAD NO. P7WSMB	CALIBER 7MM WIN. SHORT MAGNUM	GR. 140	LOAD NO. P3006P	CALIBER 30-06 SPRING.	GR. 150	LOAD NO. P300WSMD	CALIBER 300 WIN. SHORT MAGNUM	GR. 150
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GET FULL BALLISTICS ON PAGES 94-107.

NOSLER® PARTITION®

GIVING BIG STUFF BIG PROBLEMS SINCE 1977

The Nosler Partition was the first bullet we loaded in the Premium® line, and it continues to be a standard for consistency and reliability. Its partitioned lead core allows the front half of the bullet to mushroom quickly on impact, but keeps the back half intact for deep penetration.



ALSO TRY

TROPHY BONDED®
BEAR CLAW®
See page 26

A bonded jacket and core retain more than 95 percent of the bullet's weight for deep penetration.

Partitioned lead core
Front half mushrooms producing rapid expansion and energy release
Back half remains intact, retaining weight and ensuring deep penetration

Nickel-plated brass

Specially formulated propellant

Gold Medal primer

NO. 1 IN RIFLE AMMUNITION

BONE BUSTER

The Nosler Partition's time-tested design is tough enough to blast through the toughest tissue, while still creating massive wound channels. Bone-in gelatin shot with 165-grain 30-06 Spring. Nosler Partition (P3006AD) at 100 yards.



Penetration: Deep
Weight Retention: Moderate

Expansion: High/Controlled
Range: Medium

LETHAL TO THE CORE

The front half of the Nosler Partition expands to deliver energy to whatever it hits, while the rear core stays together to keep pushing the bullet deep. The two are separated by a copper-alloy partition.



Performance

"Your target will not wander off after taking a hit from this load, I would think any game within 350 yards is in the freezer."

✓ Yes, I recommend this product.

RATINGS & REVIEWS

We make it easy to review ammunition online and check out the ratings of others. Go to federalpremium.com.

TECHNOLOGIES

Partitioned Bullet Core
Gold Medal® Primer
Specially Formulated Propellant
Nickel-Plated Brass



24



25

AVAILABLE LOADS

LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.
P223Q	223 REM.	60	P2506E	25-06 REM.	115	P708A	7MM-08 REM.	140	P3030D	30-30 WIN.	170	P3006F	30-06 SPRING.	180	P300WSMB	300 WIN. SHORT MAGNUM	180
P22250G	22-250 REM.	60	P270P	270 WIN.	130	P280A	280 REM.	150	P308S	308 WIN.	150	P300WK	300 WIN. MAGNUM	165	P338A2	338 WIN. MAGNUM	210
P243E	243 WIN.	100	P270E	270 WIN.	150	P7RG	7MM REM. MAGNUM	140	P308E	308 WIN.	180	P300WD2	300 WIN. MAGNUM	180	P338B2	338 WIN. MAGNUM	250
P257B	257 ROBERTS +P	120	P270WSMC	270 WIN. SHORT MAGNUM	150	P7RF	7MM REM. MAGNUM	160	P3006AD	30-06 SPRING.	165	P300WSME	300 WIN. SHORT MAGNUM	165	P375F	375 H&H MAGNUM	300

GET FULL BALLISTICS ON PAGES 94-107.

TROPHY BONDED BEAR CLAW®

WE MADE THE TOUGHEST BULLET EVEN BETTER



Jack Carter designed it. We perfected it. The world-famous Trophy Bonded Bear Claw is a deadly-reliable bullet for large, heavy game—from Africa to Alaska and everywhere in between. Its bonded jacket and core retain more than 95 percent of the bullet's weight for deep penetration and dump as much energy as possible on impact.

TECHNOLOGIES

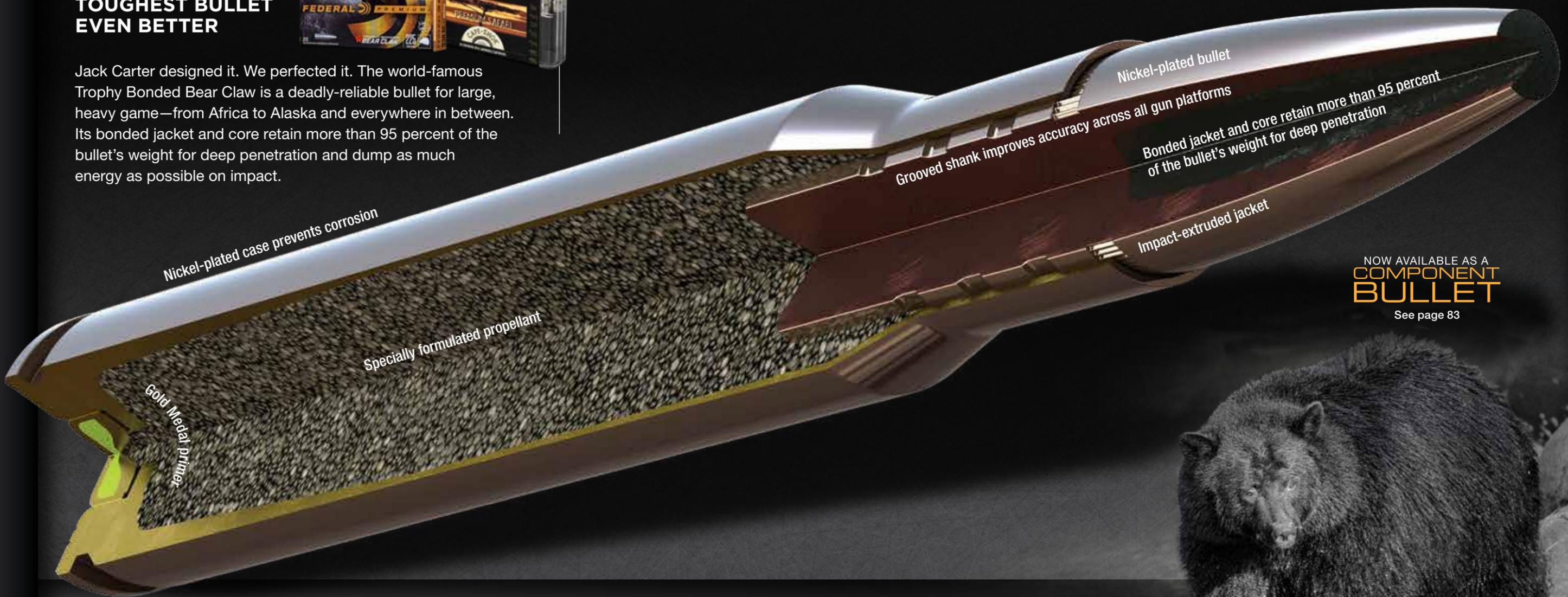
- Impact-Extruded Jacket
- Gold Medal® Primer
- Specially Formulated Propellant
- Nickel-Plated Brass & Bullet

NO. 1 IN RIFLE AMMUNITION



PROVEN FROM AFRICA TO ALASKA

The solid core of the Trophy Bonded Bear Claw allows the bullet to maintain more than 95 percent of its original weight and penetrate deep—even through some of the world's toughest game.



Nickel-plated case prevents corrosion

Specially formulated propellant

Gold Medal primer

Nickel-plated bullet
Grooved shank improves accuracy across all gun platforms

Bonded jacket and core retain more than 95 percent of the bullet's weight for deep penetration

Impact-extruded jacket

NOW AVAILABLE AS A COMPONENT BULLET
See page 83

BEAR ATTACK

Although the rear core of the Trophy Bonded Bear Claw stays intact on impact, the nose upsets aggressively for large wound channels. Gel shot with 300-grain 375 H&H Magnum (P375T1) at 100 yards.



Penetration: Deep
Weight Retention: Maximum

Expansion: High/Controlled
Range: Medium



Best Ammunition Available

"I used this for black bear in Manitoba...1 shot, complete penetration quartering away... Bear folded immediately and barely wiggled! Very pleased with this load."

Yes, I recommend this product.

RATINGS & REVIEWS

We make it easy to review ammunition online and check out the ratings of others. Go to federalpremium.com.



26

AVAILABLE LOADS

LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.
P7RT1	7MM REM. MAGNUM	175	P338T1	338 WIN. MAGNUM	225	P4570T4	45-70 GOVT.	300	P416RT1	416 REM. MAGNUM	400	P458LT1	458 LOTT	500
P3006T5	30-06 SPRING.	200	P35WT1	35 WHELEN	225	P375T1	375 H&H MAGNUM	300	P458T1	458 WIN. MAGNUM	400	P470T1	470 NITRO EXPRESS	500
P300WT1	300 WIN. MAGNUM	200	P375T4	375 H&H MAGNUM	250	P416T1	416 RIGBY	400	P458T2	458 WIN. MAGNUM	500			

BIG GAME • SAFARI • MEDIUM RANGE

ALSO TRY

NOSLER® PARTITION®
See page 27

A partitioned lead core allows the front half of the bullet to expand, but keeps the back intact for deep penetration.



27

GET FULL BALLISTICS ON PAGES 94-107.

ALSO TRY

TROPHY BONDED®
BEAR CLAW®
See page 26

A bonded jacket and core retain more than 95 percent of the bullet's weight for deep penetration.



SWIFT® A-FRAME®

TURNING THE TABLES ON DANGEROUS GAME

Those who hunt game that hunts back trust their lives to the Swift A-Frame. Its bonded front core and progressively tapered jacket produce controlled expansion and energy release. The design eventually stops expansion and maintains a longer shank for deep penetration.



DIVIDE AND CONQUER

The divided design of the Swift A-Frame allows the front of the bullet to expand considerably, but halts it halfway down the bullet shank, keeping the rear intact for deep penetration on large game.



TECHNOLOGIES

- A-Frame Jacket
- Gold Medal® Primer
- Specially Formulated Propellant
- Nickel-Plated Brass

NO. 1 IN RIFLE AMMUNITION

CONTROL FREAK

The progressively tapered jacket and bonded construction in the nose of the Swift A-Frame controls expansion on tough game, for an extremely efficient energy transfer within the animal. Gelatin shot with 300-grain 375 H&H Magnum (P375SA) at 100 yards.



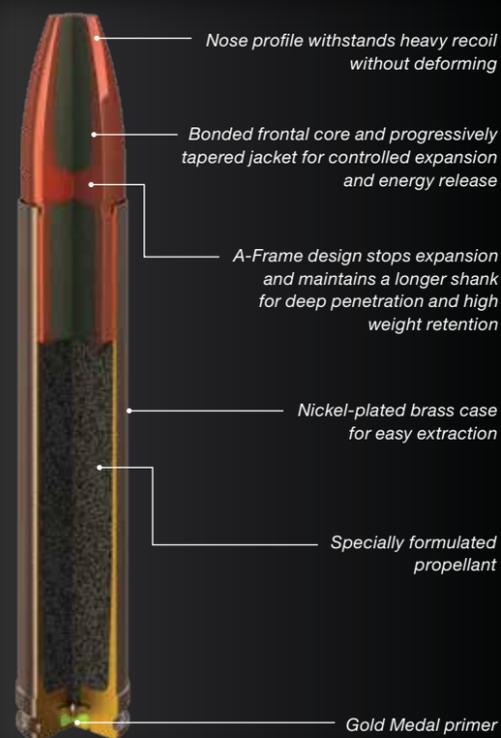
Penetration: Deep
Weight Retention: Maximum

Expansion: High/Controlled
Range: Medium

PARTNER SPOTLIGHT: Safari Club International



Federal® proudly partners with Safari Club International to protect the freedom to hunt. SCI is an effective advocate for hunting in North America, Africa and around the world. Since 2000, SCI has spent \$140 million on protecting the freedom to hunt through policy advocacy, litigation, and education for federal and state legislators to ensure hunting is protected for future generations. Visit safariclub.org.



Nose profile withstands heavy recoil without deforming

Bonded frontal core and progressively tapered jacket for controlled expansion and energy release

A-Frame design stops expansion and maintains a longer shank for deep penetration and high weight retention

Nickel-plated brass case for easy extraction

Specially formulated propellant

Gold Medal primer



LOAD NO.	CALIBER	GR.
P370SA	370 SAKO MAGNUM	286
P9362SA	9.3X62 MAUSER	286

LOAD NO.	CALIBER	GR.
P9374SA	9.3X74R	286
P375SA	375 H&H MAGNUM	300

LOAD NO.	CALIBER	GR.
P416RSA	416 REM. MAGNUM	400
P416SA	416 RIGBY	400

LOAD NO.	CALIBER	GR.
P458SA	458 WIN. MAGNUM	500
P470SA	470 NITRO EXPRESS	500

LOAD NO.	CALIBER	GR.
P500NSA	500 NITRO EXPRESS	570

TROPHY BONDED SLEDGEHAMMER® SOLID

NOTHING STOPS IT, SO IT CAN STOP ANYTHING

Jack Carter's legendary Trophy Bonded Sledgehammer Solid bonds the core to a thick brass jacket to achieve bone-crushing penetration. Its flat nose minimizes deflection for a straight, deep wound cavity, and the grooved shank improves accuracy across an array of rifle platforms.



TECHNOLOGIES

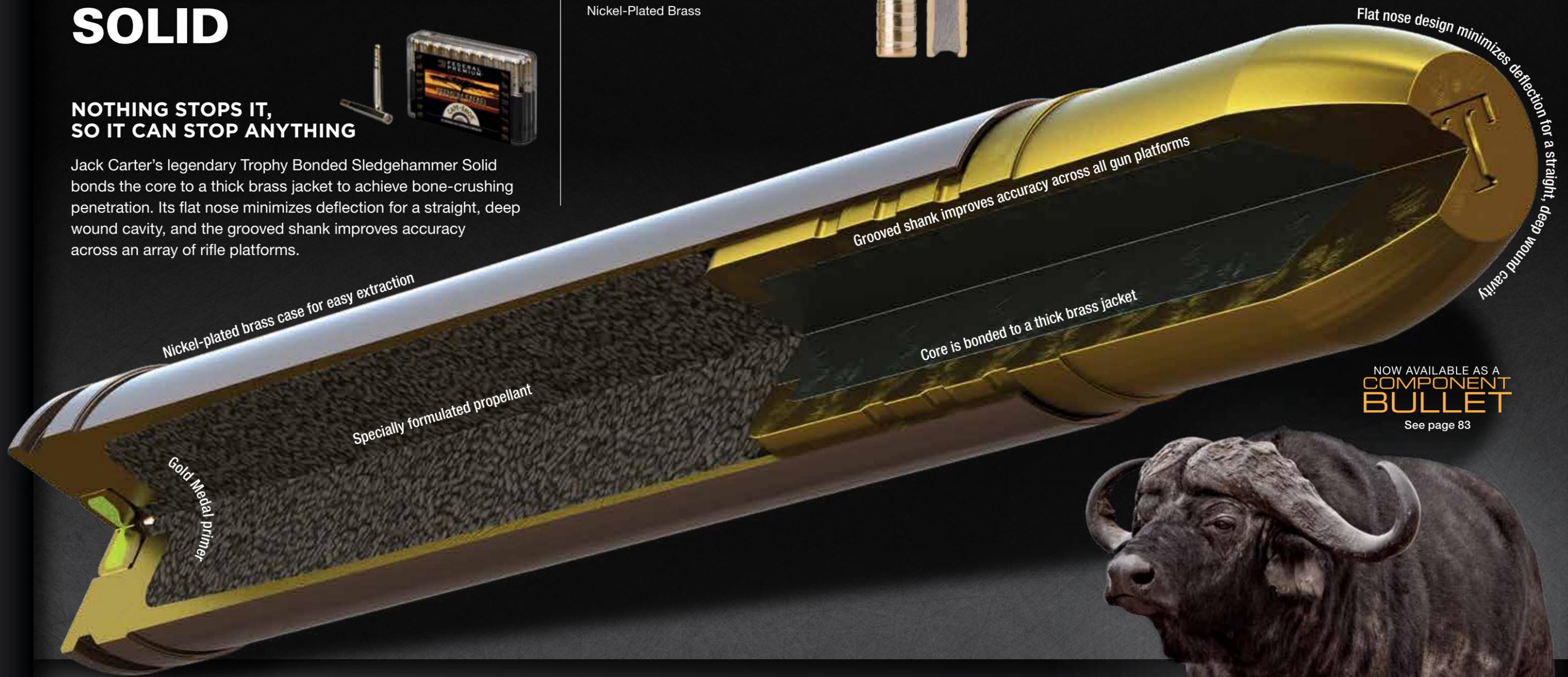
- Bonded Brass Jacket
- Gold Medal® Primer
- Specially Formulated Propellant
- Nickel-Plated Brass

NO. 1 IN RIFLE AMMUNITION



FLAT-OUT DEVASTATING

The flat nose of the Trophy Bonded Sledgehammer Solid minimizes deflection off bone, keeping the bullet driving deep, and carving straight, lethal wound channels.



NOW AVAILABLE AS A
COMPONENT BULLET
See page 83

DESTROYS EVERYTHING EXCEPT YOUR NERVE

The Trophy Bonded Sledgehammer Solid's thick brass jacket prevents deformation on impact for deep penetration and 99 percent weight retention. Gelatin shot with 300-grain 375 H&H Magnum (P375T2) at 100 yards.



Penetration: Maximum
Weight Retention: Maximum

Expansion: None
Range: Medium



30

AVAILABLE LOADS

LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.
P375T2	375 H&H MAGNUM	300	P416RT2	416 REM. MAGNUM	400	P458LT2	458 LOTT	500
P416T2	416 RIGBY	400	P458T3	458 WIN. MAGNUM	500	P470T2	470 NITRO EXPRESS	500

ALSO TRY

WOODLEIGH™
HYDRO SOLID
See page 32

A unique nose design produces the same penetration of traditional solids with a larger wound channel.



31

GET FULL BALLISTICS ON PAGES 94-107.

ALSO TRY

TROPHY BONDED®
SLEDGEHAMMER® SOLID
See page 30

A lead core bonded to a thick bronze jacket achieves bone-crushing penetration and straight wound cavities.



WOODLEIGH™ HYDRO SOLID

SHOCKING TERMINAL PERFORMANCE

Hunters who target dangerous game have always relied on solid, non-expanding bullets that blow through bone and thick hide. The Woodleigh Hydro Solid offers that same unstoppable penetration while also creating a massive wound channel and transferring more energy to the target.



BLASTING CAP

The Woodleigh Hydro Solid's polymer cap disintegrates on impact, exposing a concave nose and flared pressure ring. It creates a larger wound cavity than traditional solids.

TECHNOLOGIES

- Polymer Cap
- Concave Nose
- Flared Pressure Ring
- Gold Medal® Primer
- Specially Formulated Propellant
- Nickel-Plated Brass



Amazing Performance On Cape Buffalo

"...Very large wound cavity. The hole in the heart looked to be more than twice the caliber size. The recovered round looked like it could be reloaded."

Yes, I recommend this product.

RATINGS & REVIEWS

We make it easy to review ammunition online and check out the ratings of others. Go to federalpremium.com.



NO. 1 IN RIFLE AMMUNITION

DOUBLE THE TROUBLE

The exclusive design of the Woodleigh Hydro Solid allows it to transfer more energy to the target, resulting in a wound channel that's approximately twice the size of standard solids. Top gelatin shot with 300-grain 375 H&H Magnum Woodleigh Hydro Solid (P375WH) at 100 yards; bottom gelatin shot with a 300-grain 375 H&H Magnum conventional solid.



Woodleigh Hydro Solid



Conventional Solid



Polymer nose cap ensures reliable feeding

Concave nose and flared pressure ring produce larger wound cavities

Solid copper-alloy bullet offers almost 100 percent weight retention

Grooved shank improves accuracy

Nickel-plated brass case for easy extraction

Specially formulated propellant

Gold Medal primer



LOAD NO.	CALIBER	GR.
P370WH	370 SAKO MAGNUM	286
P9362WH	9.3X62 MAUSER	286

LOAD NO.	CALIBER	GR.
P9374WH	9.3X74R	286
P375WH	375 H&H MAGNUM	300

LOAD NO.	CALIBER	GR.
P416WH	416 RIGBY	400
P416RWH	416 REM. MAGNUM	400

LOAD NO.	CALIBER	GR.
P458WH	458 WIN. MAGNUM	500
P458LWH	458 LOTT	500

LOAD NO.	CALIBER	GR.
P470WH	470 NITRO EXPRESS	500
P500NWH	500 NITRO EXPRESS	570

ALSO TRY

SPEER® TNT GREEN®
See page 36

Get devastating terminal performance and match-grade accuracy in a lead-free varmint bullet.



35

NOSLER® BALLISTIC TIP® VARMINT & PREDATOR

MAKE PREDATORS POP

Long distances, stiff breezes and tough predators are no match for the Nosler Ballistic Tip Varmint & Predator. The bullet's thin jacket produces violent energy release and minimal penetration, while its boat-tail design and polymer tip produce less bullet drop and wind drift.



Polymer tip produces less bullet drop and wind drift

Thin jacket produces violent energy release and minimal penetration

Concentric jacket results in excellent downrange accuracy

Boat-tail design for long-range accuracy

Nickel-plated brass

Specially formulated propellant

Gold Medal primer

NO. 1 IN RIFLE AMMUNITION

DUMPING GROUND

Nosler Ballistic Tip Varmint & Predator rounds are incredibly accurate, expand rapidly and dump energy into game with minimum penetration. Gelatin shot with 55-grain 223 Rem. Nosler Ballistic Tip Varmint (P223F) from an MSR, 16-inch barrel, 1:9-inch twist at 100 yards.



Penetration: Low
Weight Retention: Minimum

Expansion: Explosive
Range: Long

TIP OF THE SPEAR

The polymer tip of the Nosler Ballistic Tip Varmint & Predator bullet increases the ballistic coefficient of the projectile. The result is simple: Flatter trajectories and more punch at long range.



Devastating Round

"I own guns from 17 to 500 but am truly amazed by this round, and I'm not in the business of bigging things up generally."

✓ Yes, I recommend this product.

RATINGS & REVIEWS

We make it easy to review ammunition online and check out the ratings of others. Go to federalpremium.com.



TECHNOLOGIES

- Concentric Jacket
- Gold Medal® Primer
- Specially Formulated Propellant
- Nickel-Plated Brass



34

LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.
P204B	204 RUGER	32	P222C	222 REM.	40	P223F	223 REM.	55	P243H	22-250 REM.	55
P204C	204 RUGER	40	P223P	223 REM.	40	P224VLKBT1	224 VALKYRIE	60	P2506G	25-06 REM.	85

ALSO TRY

NOSLER® BALLISTIC TIP® VARMINT & PREDATOR
See page 34

Minimize wind drift, flatten trajectories and produce unmatched devastation on impact.



SPEER® TNT GREEN®

ONLY THING CLEANER ARE THE KILLS

Speer TNT Green is a lead-free bullet that couples devastating terminal performance with match-grade accuracy. The thin jacket and compressed powdered core provide explosive expansion and energy release.



NO. 1 IN RIFLE AMMUNITION

NO LEAD—ALL LETHAL

Copper-polymer Speer TNT Green bullets create only an entrance wound and transfer all of their energy inside the target. Gelatin shot with 43-grain 223 Rem. Speer TNT Green (P223R) from an MSR, 16-inch barrel, 1:9-inch twist at 100 yards.



Penetration: Low
Weight Retention: Minimum

Expansion: Explosive
Range: Long

PUT TOGETHER TO COME APART

When you wrap compressed powdered copper in a flyweight jacket, and then send it into a prairie dog, the results aren't pretty—at least for the prairie dog.



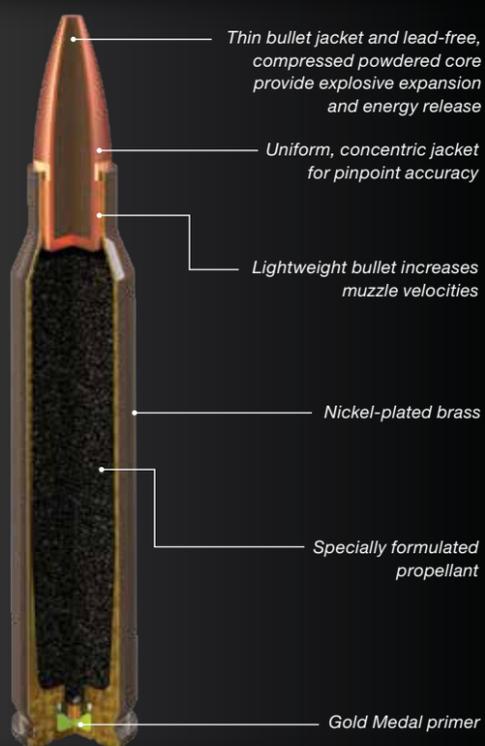
BALLISTICS ON DEMAND

Quickly determine drift, drop and more out to 2,000 yards for any rifle or handgun load. Check out our Ballistics Calculator at federalpremium.com/ballistics-calculator.



TECHNOLOGIES

- Lead-Free Compressed Powder Core
- Gold Medal® Primer
- Specially Formulated Propellant
- Nickel-Plated Brass



Thin bullet jacket and lead-free, compressed powdered core provide explosive expansion and energy release

Uniform, concentric jacket for pinpoint accuracy

Lightweight bullet increases muzzle velocities

Nickel-plated brass

Specially formulated propellant

Gold Medal primer



LOAD NO.	CALIBER	GR.
P22D	22 HORNET	30
P222D	222 REM.	43

LOAD NO.	CALIBER	GR.
P223R	223 REM.	43
P22250D	22-250 REM.	43

NEW!

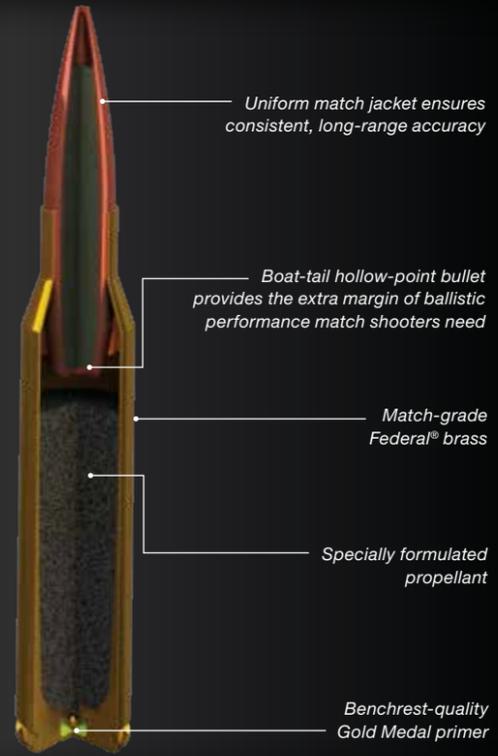
COMPETITION TARGET • LONG RANGE



GOLD MEDAL[®] SIERRA[®] MATCHKING[®]

WE ARE THE CHAMPIONS

You can't compete at the highest levels if your ammunition doesn't impact where it's supposed to. The Sierra MatchKing is built for long-range accuracy under even the most challenging conditions. Its precision design ensures phenomenal accuracy when more than bragging rights are on the line.



Uniform match jacket ensures consistent, long-range accuracy

Boat-tail hollow-point bullet provides the extra margin of ballistic performance match shooters need

Match-grade Federal[®] brass

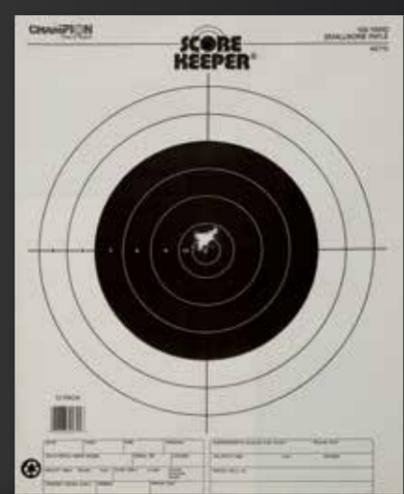
Specially formulated propellant

Benchrest-quality Gold Medal primer

NO. 1 IN RIFLE AMMUNITION

10 SHOTS, 1 HOLE, NO COMPARISON

Combine the ultra-precise Sierra MatchKing bullet with Federal Premium's legendary loading processes, benchrest-quality Gold Medal primers, and world-class brass, and this is what you get. This amazing .81-inch 10-shot group was shot with 168-grain 308 Win. Sierra MatchKing (GM308M) from an accuracy barrel at 200 yards.



Great Ammo!

"Does great in my gun! Averages about 2.5-inch groups at 500 yards and shoots thumbtacks at 100 yards!"

Yes, I recommend this product.

RATINGS & REVIEWS

We make it easy to review ammunition online and check out the ratings of others. Go to federalpremium.com.

TECHNOLOGIES

- Uniform Match Jacket
- Gold Medal Primer
- Specially Formulated Propellant
- Match-Grade Brass



Official Sponsor



LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.
GM223M	223 REM.	69	GM224VLK1	224 VALKYRIE	90	GM260M	260 REM.	142	GM308M	308 WIN.	168	GM3006M	30-06 SPRING.	168
GM223M3	223 REM.	77	NEW GM6CRDM1	6MM CREEDMOOR	107	GM65CRD1	6.5 CREEDMOOR	140	GM308M2	308 WIN.	175	GM300WM	300 WIN. MAGNUM	190
												GM338LM	338 LAPUA MAGNUM	250
												GM338LM2	338 LAPUA MAGNUM	300

NEW!

GOLD MEDAL[®] BERGER[®]

YOUR COMPETITIVE ADVANTAGE

The most sought-after bullets among competitors on the Precision Rifle Series are now loaded into the industry's most trusted factory rifle ammunition. Gold Medal Berger loads feature an advanced boat-tail bullet with a high ballistic coefficient to provide the flattest trajectories, less wind drift and surgical long-range accuracy.



Now available in 224 Valkyrie



NO. 1 IN RIFLE AMMUNITION

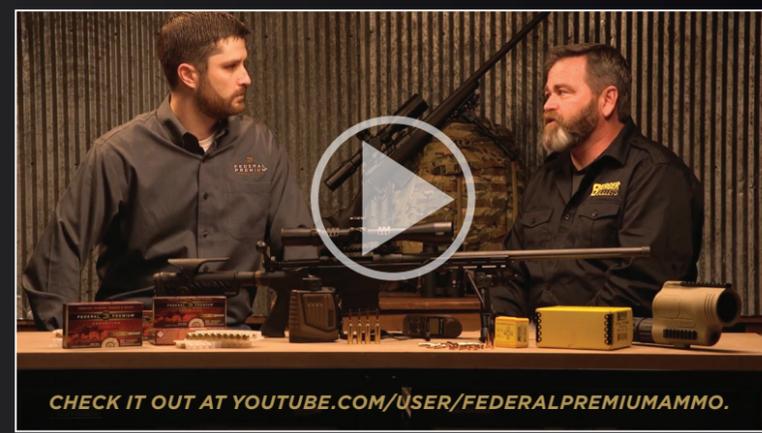
CRAFTED FOR ACCURACY

Whether loaded with the Berger Hybrid, BT Target, AR Hybrid Tactical or Juggernaut Tactical, Gold Medal Berger loads offer the flattest trajectories and most consistent ballistics possible for long-range target shooters.



MAKING WIND CALLS

Consistent long-range precision requires accurately reading the wind. Federal's Jared Kutney and Berger Bullets' Emil Praslick share tips on how to make the best possible wind calls.



CHECK IT OUT AT [YOUTUBE.COM/USER/FEDERALPREMIUMAMMO](https://www.youtube.com/user/federalpremiumammo).

TECHNOLOGIES

- Uniform Match Bullet
- Match-Grade Brass
- Specially Formulated Propellant
- Gold Medal Match Primer



40 AVAILABLE LOADS

LOAD NO.	CALIBER	GR.	BULLET
GM223BH73	223 REM.	73	Berger BT Target
NEW GM224VLKBH2	224 VALKYRIE	80.5	Berger Hybrid OTM
GM6CRDBH1	6MM CREEDMOOR	105	Berger Hybrid OTM

LOAD NO.	CALIBER	GR.	BULLET
GM65GDLBH130	6.5 GRENDEL	130	Berger AR Hybrid OTM
GM65CRDBH130	6.5 CREEDMOOR	130	Berger AR Hybrid OTM
GM308BH185	308 WIN.	185	Berger Juggernaut OTM

LOAD NO.	CALIBER	GR.	BULLET
NEW GM300WMBH1	300 WIN MAG	215	Berger Hybrid OTM
NEW GM300NMBH1	300 NORMA MAG	215	Berger Hybrid OTM



GET FULL BALLISTICS ON PAGES 94-107.

COMPETITION TARGET • LONG RANGE

HYDRA-SHOK DEEP®

THE ORIGINAL MADE BETTER

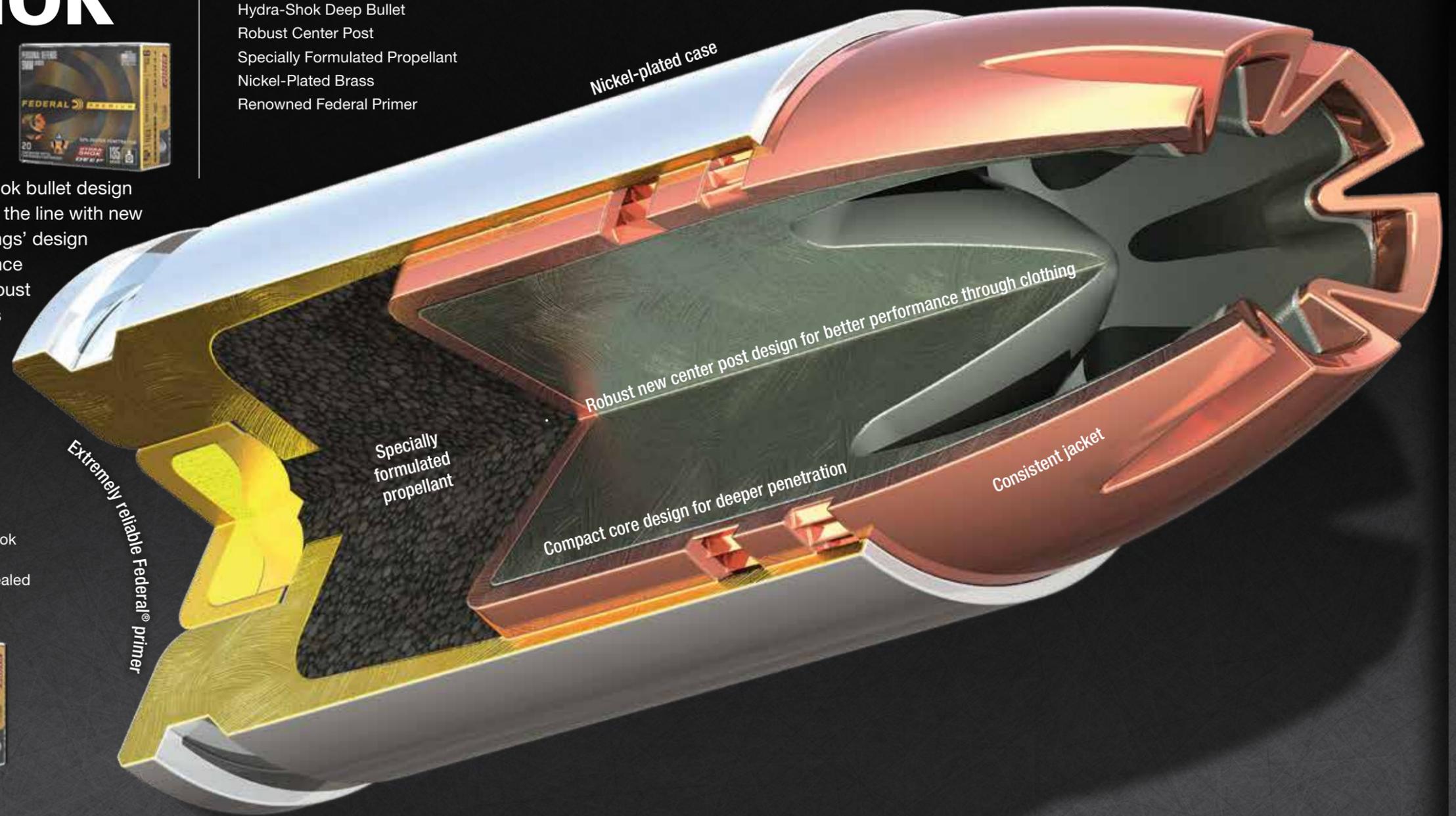
Last year, we reinvented the proven Hydra-Shok bullet design with Hydra-Shok Deep. Now we've expanded the line with new loads in 40 S&W and 45 Auto. The new offerings' design improvements better meet modern performance measurements. The bullets feature a more robust center post and a core design that penetrates to critical depths through common self-defense barriers, without over-penetrating.



TECHNOLOGIES

- Hydra-Shok Deep Bullet
- Robust Center Post
- Specially Formulated Propellant
- Nickel-Plated Brass
- Renowned Federal Primer

NEW!



ORIGINAL HYDRA-SHOK

For decades, shooters have relied on original Hydra-Shok for effective self-defense. The time-tested design is still available in the full spectrum of popular loads for concealed carry and home defense.

NOW AVAILABLE AS A
COMPONENT BULLET

See page 84



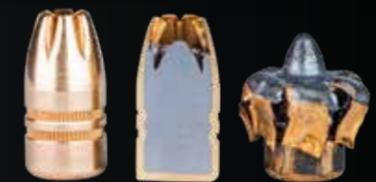
BETTER PENETRATION

Hydra-Shok Deep features a new compact core that drives more consistent penetration through common barriers. Bare gelatin shot with 9mm Luger Hydra-Shok Deep (P9HSD1) at 10 feet.



POWER POST

Hydra-Shok Deep's new reinforced center post and hollow point design provide better, more consistent expansion through clothing and other barriers commonly encountered in self-defense situations.



HYDRA-SHOK DEEP

LOAD NO.	CALIBER	GR.
P9HSD1	9MM LUGER	135
NEW P40HSD1	40 S&W	165
NEW P45HSD1	45 AUTO	210

HYDRA-SHOK

LOAD NO.	CALIBER	GR.
P32HS1	32 AUTO	65
P9HS1	9MM LUGER	124
P9HS2	9MM LUGER	147
P357S1	357 SIG	125
P38HS1	38 SPECIAL +P	129

LOAD NO.	CALIBER	GR.
P357HS1	357 MAGNUM	158
P40HS2	40 S&W	155
P40HS3	40 S&W	165
P40HS1	40 S&W	180

HYDRA-SHOK

LOAD NO.	CALIBER	GR.
P10HS1	10MM AUTO	180
P44HS1	44 REM. MAGNUM	240
P45HS1	45 AUTO	230

HYDRA-SHOK LOW-RECOIL

LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.
PD327HS1 H	327 FEDERAL MAGNUM	85	PD357HS2 H	357 MAGNUM	130
PD380HS1 H	380 AUTO	90	PD40HS4 H	40 S&W	135
PD9HS5 H	9MM LUGER	135	PD45HS3 H	45 AUTO	165
PD38HS3 H	38 SPECIAL	110			

HST®



TRUSTED BY LAW ENFORCEMENT, DESIGNED TO PROTECT EVERYTHING YOU CARE ABOUT

It provides everything needed in a self-defense round: consistent expansion, optimum penetration and superior terminal performance. It's HST and it's already the duty load of choice for law enforcement officers everywhere. That's why you can trust it to protect what matters most.

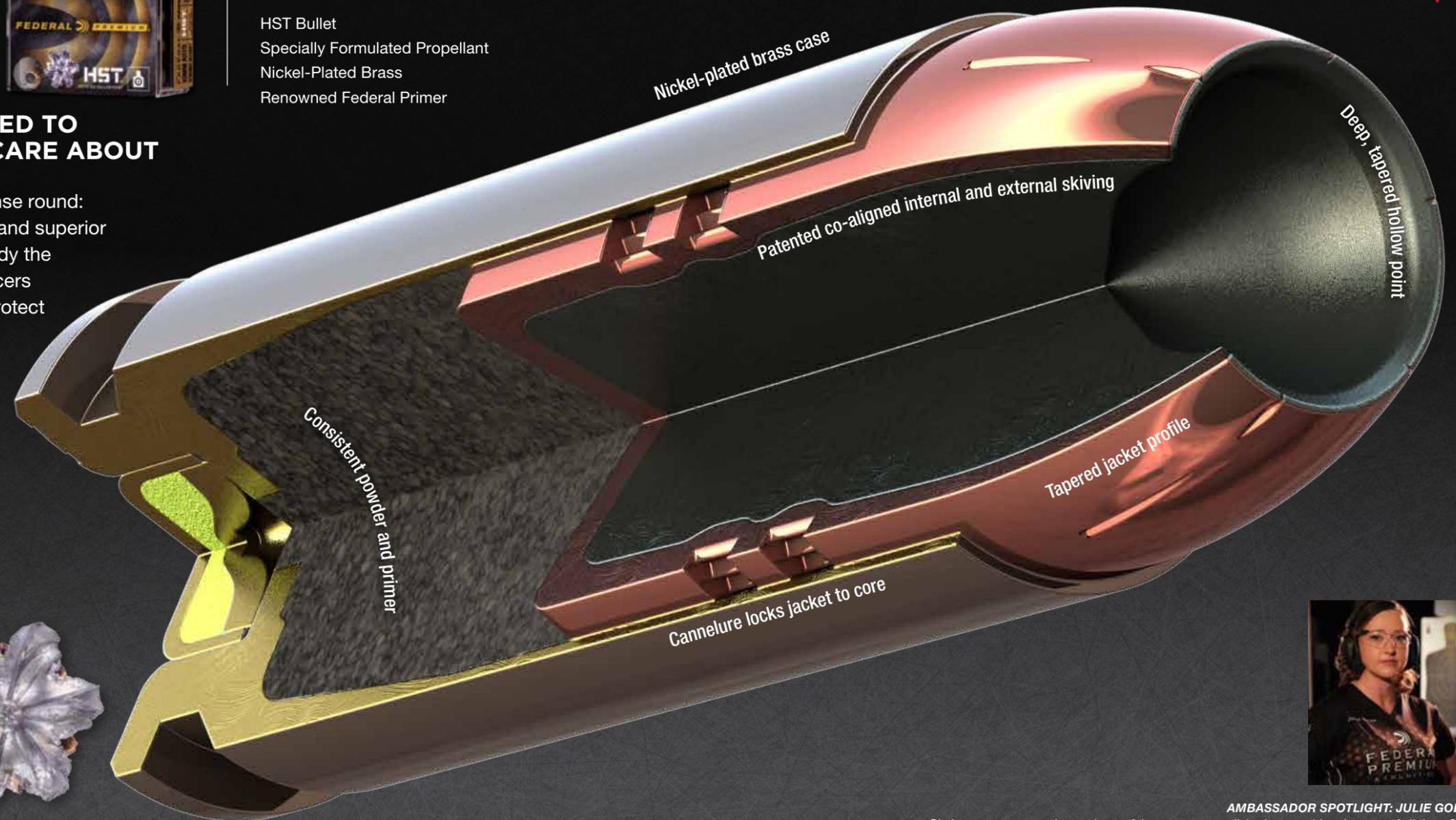
NOW IN 10MM AUTO

HST has never packed this kind of punch. The all-new 10mm Auto load's 1130 fps muzzle velocity, combined with the exclusive HST design, fuels extremely large, consistent expansion that stops any threat.



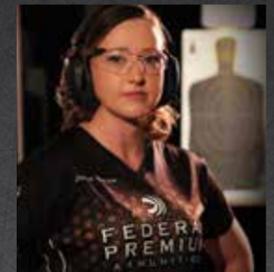
TECHNOLOGIES

- HST Bullet
- Specially Formulated Propellant
- Nickel-Plated Brass
- Renowned Federal Primer



NEW!

PERSONAL DEFENSE®



AMBASSADOR SPOTLIGHT: JULIE GOLOB

She's a veteran, an author and one of the most accomplished competitive shooters of all time. She's Julie Golob and whether she's training, competing or teaching the next generation of shooters, she relies on Federal Ammunition. Learn more about her at juliegolob.com.

CONSISTENCY COUNTS

The exclusive HST bullet is engineered to expand extremely reliably and retain nearly all of its weight through almost every kind of barrier. The result is consistent, nearly identical penetration and expansion in any situation, shot after shot. Bare gelatin shot with 10mm Auto HST (P10HST1S) at 10 feet.



38 SPECIAL +P HST MICRO

The HST product line is even stronger thanks to its first-of-its-kind 38 Special +P load. The cartridge is optimized for use in concealed-carry platforms, with a buried bullet design that eliminates air space for five times more consistent velocities. Its bullet allows better function, deeper penetration and softer shooting in short barrels, while the HST design provides superb, consistent expansion.



HST

LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.
P9HST1S	9MM LUGER	124	P45HST2S	45 AUTO	230
P9HST2S	9MM LUGER	147	NEW P10HST1S	10MM AUTO	200
P40HST1S	40 S&W	180			

HST MICRO

LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.
P380HST1S	380 AUTO MICRO	99	P38HST1S	38 SPECIAL +P MICRO	130
P9HST5S	9MM LUGER MICRO	150			



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AVAILABLE LOADS



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GET FULL BALLISTICS ON PAGES 94-107.

TROPHY BONDED® 10MM AUTO

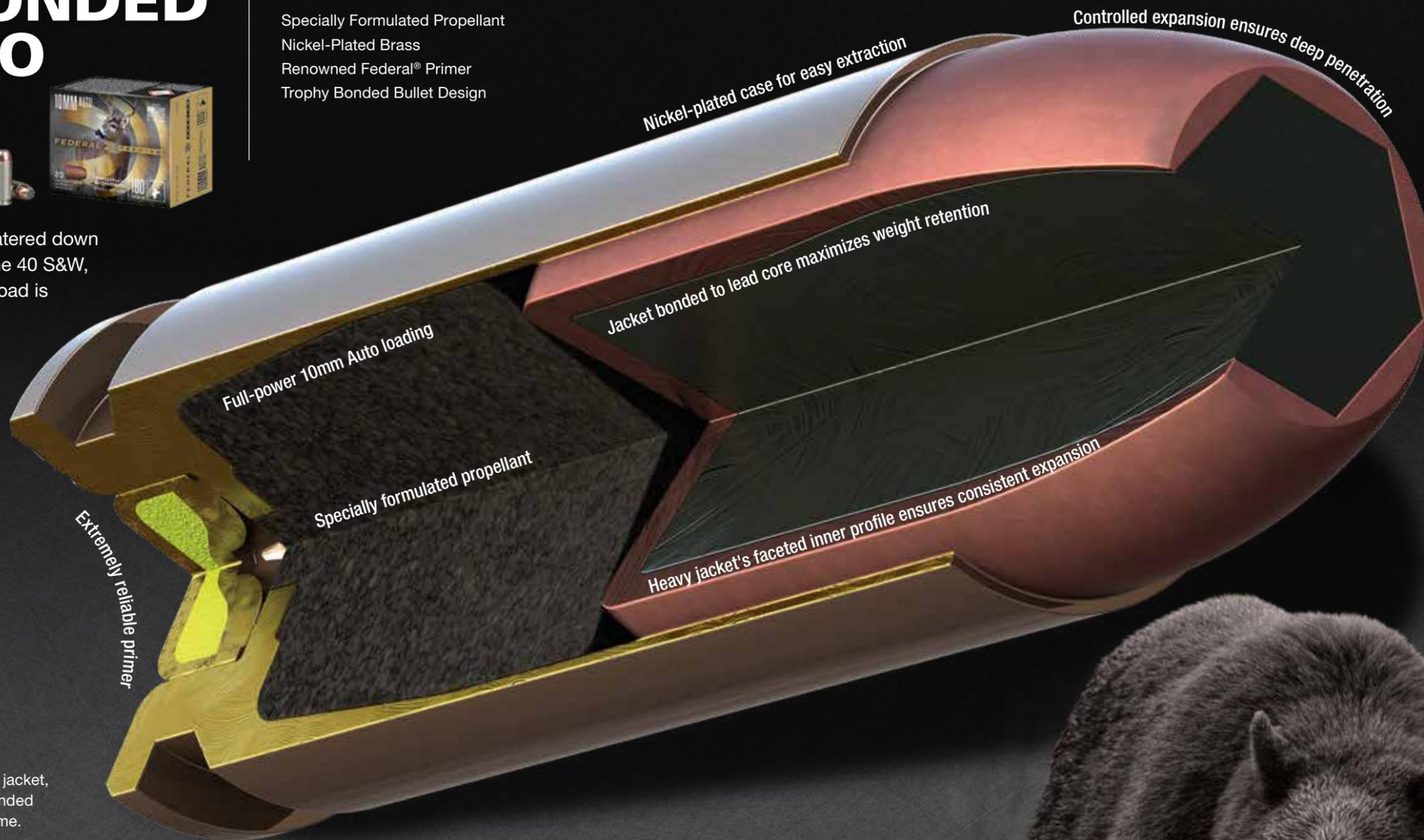
FULL POWER— AND ABOUT TIME

While most 10mm Auto ammunition is watered down to produce ballistics similar to those of the 40 S&W, our Trophy Bonded Jacketed Soft Point load is a full-power offering with the muscle needed for big game hunting.



TECHNOLOGIES

- Specially Formulated Propellant
- Nickel-Plated Brass
- Renowned Federal® Primer
- Trophy Bonded Bullet Design



INNER STRENGTH

By forming the inner profile of the bullet's heavy jacket, Federal Premium engineers gave the Trophy Bonded JSP controlled expansion on a variety of big game.

THE POWER OF 10

The heavy jacket of the Trophy Bonded JSP is bonded to the lead core, ensuring high weight retention and deep penetration. Gelatin shot with 180-grain 10mm Auto Trophy Bonded® JSP (P10T1) from a Glock 20 at 20 yards.



Penetration: Moderate
Weight Retention: High

Expansion: Moderate
Range: Medium



OUTSTANDING KNOCKDOWN!

"Three days into to the season a 6 point buck walked out in front of my stand about 25 yards. I lined up my sights behind the shoulder and squeezed the trigger. The buck jumped straight up in the air, took about two steps and dropped like a rock. Amazing round!"

Yes, I recommend this product.

RATINGS & REVIEWS

We make it easy to review ammunition online and check out the ratings of others. Go to federalpremium.com.



ALSO TRY

SWIFT® A-FRAME®
See page 48

A bonded jacket and core retain more than 95 percent of the bullet's weight for deep penetration.



LOAD NO.	CALIBER	GR.
P10T1	10MM AUTO	180

SWIFT® A-FRAME®

LONG PERFORMANCE THROUGH SHORT BARRELS

Get robust, proven on-game handgun performance with the Swift A-Frame. The rounds offer outstanding accuracy, as well as high weight retention and controlled expansion on big game.



ALSO TRY

FUSION®
See page 87

Harness the power of molecularly fused construction for the toughness, accuracy and terminal performance short-barrel hunters need.



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EXPANSION STOPS— THE BULLET KEEPS GOING

The Swift A-Frame's cross member stops expansion, and the retained core maintains weight and extends penetration.



COPPER OPTION

Get almost 100 percent weight retention and moderate penetration in a monolithic copper bullet with our Barnes® Expander® handgun loads.

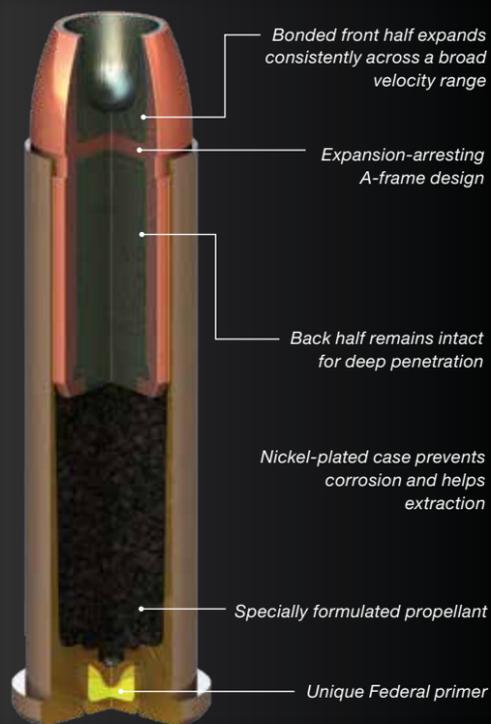


The design ensures peak performance for hunters who crave the challenge of handgun hunting.



TECHNOLOGIES

Specially Formulated Propellant
Nickel-Plated Brass



Bonded front half expands consistently across a broad velocity range

Expansion-arresting A-frame design

Back half remains intact for deep penetration

Nickel-plated case prevents corrosion and helps extraction

Specially formulated propellant

Unique Federal primer

A IS FOR AWESOME

The A-Frame bullet design allows the front half of the bullet to expand aggressively, which leads to large, lethal wound channels. Gelatin shot with 325-grain 500 S&W Swift A-Frame (P500SA) from a Smith & Wesson X-Frame at 25 yards.



Penetration: Moderate
Weight Retention: High

Expansion: Moderate
Range: Medium



Nice Round

"I recently took a whitetail with the Swift A-Frame. It had good knockdown—the deer dropped within 20 yards."

✓ Yes, I recommend this product.

RATINGS & REVIEWS

We make it easy to review ammunition online and check out the ratings of others. Go to federalpremium.com.



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SWIFT A-FRAME

LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.
P357SA	357 MAGNUM	180	P44SA	44 REM. MAGNUM	280	P460SA	460 S&W	300
P41SA	41 REM. MAGNUM	210	P454SA	454 CASULL	300	P500SA	500 S&W	325

BARNES EXPANDER

LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.
P357XB1	357 MAGNUM	140	P44XB1	44 REM. MAGNUM	225	P460XB1	460 S&W	275
P41XB1	41 REM. MAGNUM	180	P454XB1	454 CASULL	250	P500XB1	500 S&W	275

GET FULL BALLISTICS ON PAGES 94-107.

GOLD MEDAL® HANDGUN & RIMFIRE

MATCH-GRADE PERFORMANCE FOR SHORT BARRELS AND SMALL BORES

No matter the specific discipline, competitive target shooting is always serious business. That's why we build our Gold Medal handgun and rimfire ammunition to the same exacting standards we apply to all of our Premium® line. Each load is specially designed to meet the needs of the most serious competitive shooters.



Official Sponsor

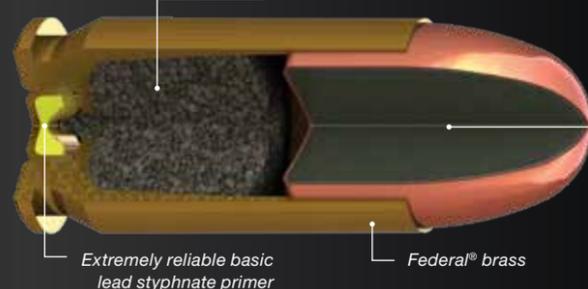


SHORT BARRELS, TIGHT GROUPS

Gold Medal's award-winning accuracy—five-round group, 0.450-inch extreme spread. Target shot with 185-grain 45 Auto Gold Medal (GM45B) from a Springfield Trophy Match at 25 yards, fired with open sights from a rest.



Consistent, specially formulated propellant



Precision-built match bullet

Extremely reliable basic lead styphnate primer

Federal® brass

TECHNOLOGIES

- Tightest Accuracy Specifications
- More Frequent Testing
- Premium Brass
- Federal Primers



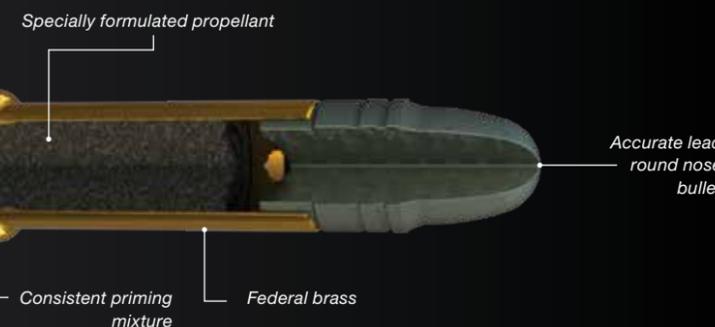
The Most Accurate Load I've Ever Shot

"If you want small groups, this is the ammo to use in your 38 Special or 357 Magnum."

✓ Yes, I recommend this product.

RATINGS & REVIEWS

We make it easy to review ammunition online and check out the ratings of others. Go to federalpremium.com.



Silhouette Magic

"...Held very tight groups to 100 meters, better or equal to any of the most expensive ammo I have tried."

✓ Yes, I recommend this product.

RATINGS & REVIEWS

We make it easy to review ammunition online and check out the ratings of others. Go to federalpremium.com.

TECHNOLOGIES

- Tightest Accuracy Specifications
- More Frequent Testing
- Premium Brass
- Federal Priming



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AVAILABLE LOADS

LOAD NO.	CALIBER	GR.	BULLET
GM38A	38 SPECIAL	148	Lead Wadcutter Match
GM45B	45 AUTO	185	FMJ Semi-Wadcutter Match
GM45A	45 AUTO	230	FMJ Match

AVAILABLE LOADS

LOAD NO.	CALIBER	GR.	BULLET	VELOCITY
711B	22 LONG RIFLE	40	Solid	1080
719	22 LONG RIFLE	40	Solid	1200

GET FULL BALLISTICS ON PAGES 94-107.

SHOTSHELL SCIENCE

RESOURCES TO CHOOSE THE RIGHT LOAD

Breaking clay targets, wingshooting gamebirds, launching slugs at big game, protecting your home—there's almost no limit to what a shotgun paired with the right ammunition can do. But to maximize the platform's potential, you need to choose the load that best fits the application. Use the resources here to make the right call no matter what your pursuit might be.



AVERAGE PELLETT COUNT — STEEL SHOT										
Shot Size	Payload Weight									
	3/4	7/8	15/16	1	1 1/8	1 1/4	1 3/8	1 1/2	1 9/16	1 5/8
7	316	-	395	422	475	527	580	633	659	685
6	236	-	295	315	354	394	433	472	492	512
5	182	-	228	243	273	304	334	364	380	395
4	144	168	180	192	216	240	264	288	300	312
3	118	136	143	158	178	197	217	237	247	257
2	94	-	117	125	141	156	172	187	195	203
1	77	-	97	103	116	129	142	154	161	167
BB	54	-	67	72	81	90	99	108	112	117
BBB	46	-	58	62	70	77	85	93	97	101
T	39	-	49	52	58	65	71	78	81	84

Weight of Shot in Ounces (Grams)

AVERAGE PELLETT COUNT — LEAD SHOT														
Shot Size	Payload Weight													
	1/2	11/16	3/4	7/8	1	1 1/8	1 1/4	1 5/16	1 3/8	1 1/2	1 5/8	1 7/8	2	2 1/4
9	292	402	439	512	585	658	731	767	804	877	951	1097	1170	1316
8-1/2	249	342	373	435	497	559	621	652	683	745	808	932	994	1118
8	205	282	307	359	410	461	512	538	564	615	666	769	820	922
7-1/2	175	241	262	306	350	394	437	459	481	525	569	656	700	787
6	112	155	169	197	225	253	281	295	309	337	366	422	450	506
5	85	117	127	149	170	191	212	223	234	255	276	319	340	382
4	67	93	101	118	135	152	169	177	186	202	219	253	270	304
2	43	60	65	76	87	98	109	114	120	130	141	163	174	196
BB	25	34	37	44	50	56	62	65	69	75	81	94	100	112

Weight of Shot in Ounces (Grams) (3% Antimony)

AVERAGE PELLETT COUNT — HEAVYWEIGHT TSS SHOT						
Shot Size	Payload Weight					
	13/16	1 1/2	1 5/8	1 3/4	2 1/4	2 1/2
9	294	544	-	634	815	-
7	-	283	-	330	424	-
7/9	-	-	470	-	-	718
8/10	-	-	653	-	-	1006

Weight of Shot in Ounces (Grams)

SHOT SIZE REFERENCE CHART														
PELLET	T	BBB	BB	1	2	3	4	5	6	7	7 1/2	8	8 1/2	9
DIAMETER INCHES	.20	.19	.18	.16	.15	.14	.13	.12	.11	.10	.095	.09	.085	.08
DIAMETER MM	5.08	4.83	4.57	4.06	3.81	3.56	3.30	3.05	2.79	2.54	2.41	2.29	2.16	2.03

GAME GUIDE										
GAME	GAUGE	DISTANCE (YDS)	CHOKE	STEEL SHOT SIZES	GAME	GAUGE	DISTANCE (YDS)	CHOKE	HW TSS SHOT SIZES	LEAD SHOT SIZES
LARGE DUCKS (Mallard, Pintail, Black)	10, 12, 16, 20	20-30	IC/M	1, 2, 3, 4	TURKEY	10, 12, 20	20-30	F	7, 8, 9, 10	4, 5, 6
	10, 12, 16, 20	30+	IC/M/F	BB, 1, 2, 3		10, 12, 20	30+	F/EF	7, 8, 9, 10	4, 5, 6
MEDIUM DUCKS (Wood Duck, Scaup, Widgeon)	12, 16, 20	20-30	IC/M	2, 3, 4, 6	PHEASANT, PRAIRIE GROUSE	12, 16, 20, 28	20-30	IC/M	3, 4	4, 5, 6, 7.5
	12, 16, 20	30+	IC/M/F	1, 2, 3, 4		12, 16, 20	30+	M/F	2, 3	4, 5, 6
SMALL DUCKS (Teal, Bufflehead)	12, 16, 20, 28, 410	20-30	IC/M/F	3, 4, 6, 7	RUFFED GROUSE, PARTRIDGE	12, 16, 20, 28	20-30	SK/IC/M	-	6, 7.5, 8, 9
	12, 16, 20	30+	IC/M/F	3, 4		12, 16, 20	30+	IC/M	-	5, 6, 7.5
LARGE GEESE (Giant, Western Canada)	10, 12	20-30	IC/M	T, BBB, BB	QUAIL, DOVE	12, 16, 20	30+	IC/M	-	6, 7.5, 8
	10, 12	30+	IC/M	T, BBB, BB		12, 16, 20, 28	20-30	SK/IC/M	-	7.5, 8, 9
MEDIUM GEESE (Snow, Lesser Canada)	10, 12	20-30	IC/M	BBB, BB, 1	WOODCOCK, SNIPE	12, 16, 20	30+	IC/M	-	7.5, 8
	10, 12	30+	IC/M	BBB, BB, 1		12, 16, 20, 28, 410	20-30	IC/M	-	4, 5, 6, 7.5
					RABBIT, SQUIRREL	12, 16, 20	30+	IC/M/F	-	4, 5, 6

Federal recommends patterning your gun to determine the optimum choke. *EF=Extra Full F = Full Choke M = Modified Choke IC = Improved Cylinder, SK=Skeet



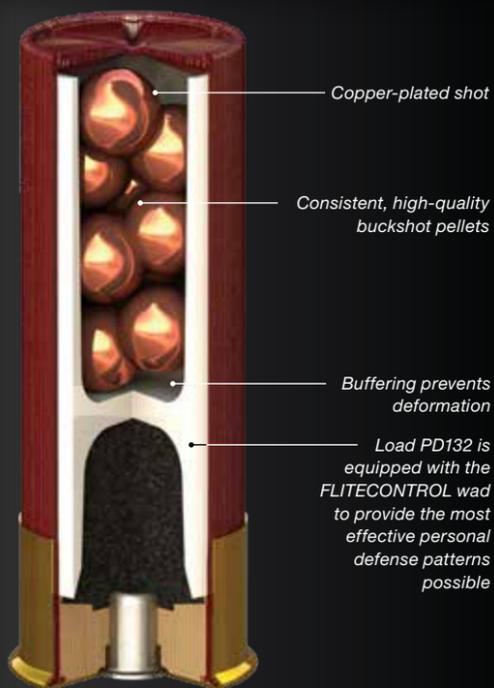
COLOR CODING

To increase safety among shooters, Federal was the first manufacturer to use color-coding for shotshells. This safety measure became an industry norm after it was introduced in 1960.

PREMIUM® PERSONAL DEFENSE® SHOTSHELL

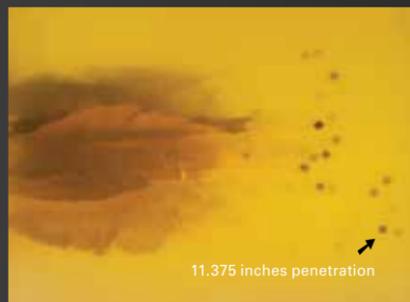
PAYLOADS THAT PROTECT

Federal Premium® offers a variety of reliable buckshot loads, including those built around .410 handguns, to protect you and your family. Their specialized payloads produce patterns and penetration optimized to meet the unique needs of personal defense situations.



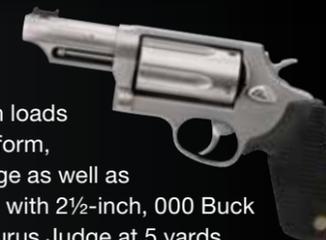
THE THREAT SCATTERS NOT THE PELLETS

Target and gelatin shot with 12-gauge 2¾-inch 4 Buck, 34 pellets (PD156 4B) with improved cylinder choke at 5 yards. The load's unique wad configuration is designed to produce a 5-inch pattern at 15 feet—the ideal for in-home defense.



HANDLES LIKE A PISTOL, PROTECTS LIKE A SHOTGUN

Premium Personal Defense .410 Handgun loads maximize the potential of the firearm platform, providing the ideal patterns for close-range as well as deep penetration. Target and gelatin shot with 2½-inch, 000 Buck .410 Handgun (PD412JGE 000) from a Taurus Judge at 5 yards.



TECHNOLOGIES

.410 Handgun Optimized*
Specially Formulated Propellant
FLITECONTROL® Wad*
*Specific loads only



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PERSONAL DEFENSE SHOTSHELL WITH FLITECONTROL

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD
PD132	12	2¾	1145	9 Pellets - 00 Buck

PERSONAL DEFENSE SHOTSHELL

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD
PD156	12	2¾	1100	34 Pellets - 4 Buck
PD256	20	2¾	1100	24 Pellets - 4 Buck

PERSONAL DEFENSE .410 HANDGUN

LOAD NO.	SHELL LENGTH	VELOCITY	PAYLOAD	LOAD NO.	SHELL LENGTH	VELOCITY	PAYLOAD
PD413JGE 000	3	775	5 pellets-000 Buck	PD412JGE 000	2½	850	4 pellets - 000 Buck
PD413JGE 4B	3	950	9 pellets-4 Buck	PD412JGE 4	2½	950	7/16 ounce - 4 Shot

TROPHY[®] COPPER SABOT SLUG



TECHNOLOGIES

- Specially Formulated Propellant
- Trophy Copper Slug
- Two-Part Sabot
- Pusher-Plate Base

DROP 200 POUNDS AT 200 YARDS

The Trophy Copper Sabot incorporates the industry's most advanced slug technology to deliver groups as small as 3½ inches at 200 yards. In addition to this accuracy, hunters get less drop, more manageable recoil, and consistent penetration and expansion at any range.



The wad's pusher plate keeps the slug perfectly centered down the barrel

Unique two-part sabot supports the slug base for clean, consistent separation

Polymer tip and sleek profile increase the ballistic coefficient for higher downrange velocity and energy

Deep, externally skived slug cavity for consistent, superior expansion across a broad velocity range



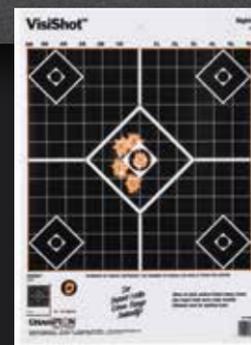
200-YARD PERFORMANCE

The Trophy Copper slug's exclusive design results in reliable, deadly expansion across a broad velocity range.



THIS IS WHAT CONSISTENCY LOOKS LIKE

By incorporating a deep, externally skived cavity in the nose, we ensure the Trophy Copper Slug opens consistently—whether it hits the target at 20 yards or 200-plus. Gelatin shot at 100 yards.



SLUG ACCURACY REDEFINED

By combining a two-part sabot with a sleek polymer-tip projectile, the Trophy Copper Slug achieves rifle-like groups at 100 yards.

★★★★★
Ever shoot a big bull elk with a slug gun?
I did this last elk season in western Wyoming. Savage 212 with 3" 300 grain, 106 yards. He was quartered away so the entry was behind the rib, right in the boiler room. He went 10 yards and took a dive. I'm shooting 2" 4-shot groups at 100 yards."

✓ **Yes, I recommend this product.**

RATINGS & REVIEWS
We make it easy to review ammunition online and check out the ratings of others. Go to federalpremium.com.



LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	GR.	LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	GR.
P152 TC	12	2¾	1900	300	P208 TC	20	2¾	1700	275
P151 TC	12	3	2000	300	P209 TC	20	3	1900	275



TRUBALL® RIFLED SLUG

MAKE YOUR BIRD BARREL A TACK-DRIVER

Smoothbore slugs aren't supposed to deliver accuracy like this. But the TruBall system centers the projectile as it travels down the barrel for groups as tight as 1.4 inches at 50 yards. The Deep Penetrator version's high-antimony lead provides extra penetration needed for tough hogs and bears.



50 YARDS



100 YARDS

SMOOTHBORE SALVATION

Forget everything you think you know about smoothbore slug gun accuracy. The TruBall prints groups at 50 and even 100 yards that would rival some rifles. Targets shot with PB127 RS at 50 and 100 yards.

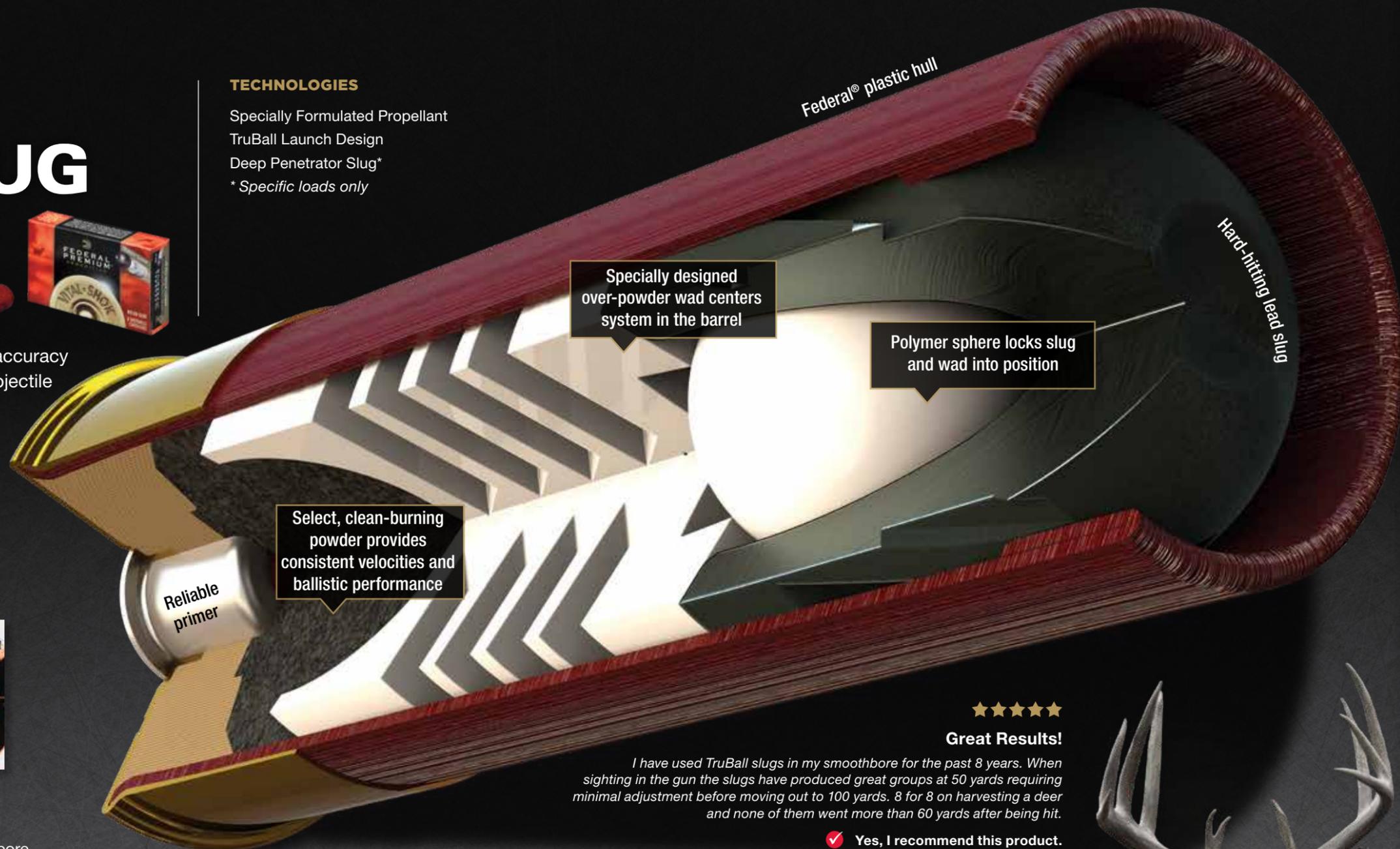
DEEP THOUGHTS

High-antimony lead makes the TruBall Deep Penetrator Slug significantly harder, giving it superior penetration on tough game. Gelatin shot with PB127 DPRS at 100 yards; the slug penetrated more than 24 inches, passing completely through the block.



TECHNOLOGIES

- Specially Formulated Propellant
- TruBall Launch Design
- Deep Penetrator Slug*
- * Specific loads only



Great Results!

I have used TruBall slugs in my smoothbore for the past 8 years. When sighting in the gun the slugs have produced great groups at 50 yards requiring minimal adjustment before moving out to 100 yards. 8 for 8 on harvesting a deer and none of them went more than 60 yards after being hit.

✓ Yes, I recommend this product.

RATINGS & REVIEWS

We make it easy to review ammunition online and check out the ratings of others. Go to federalpremium.com.



HUNTERS FOR CONSERVATION®

Learn how Federal® supports responsible stewardship of our land, waters and wildlife through the Hunters For Conservation program. Go to federalpremium.com or follow @Hunters4Conservation on Twitter.

VITAL•SHOK TRUBALL RIFLED SLUG

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	OUNCES	LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	OUNCES
PB127 LRS*	12	2¾	1300	1	PB131 RS	12	3	1700	1
PB127 RS	12	2¾	1600	1	PB203 RS	20	2¾	1600	¾
					PB209 RS	20	3	1700	¾

*Low-recoil load

VITAL•SHOK TRUBALL DEEP PENETRATOR RIFLED SLUG

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	OUNCES
PB127 DPRS	12	2¾	1350	1

MEDIUM GAME • SMOOTHBORE BARRELS



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AVAILABLE LOADS

GET FULL BALLISTICS ON PAGES 94-107.



VITAL•SHOK® BUCKSHOT

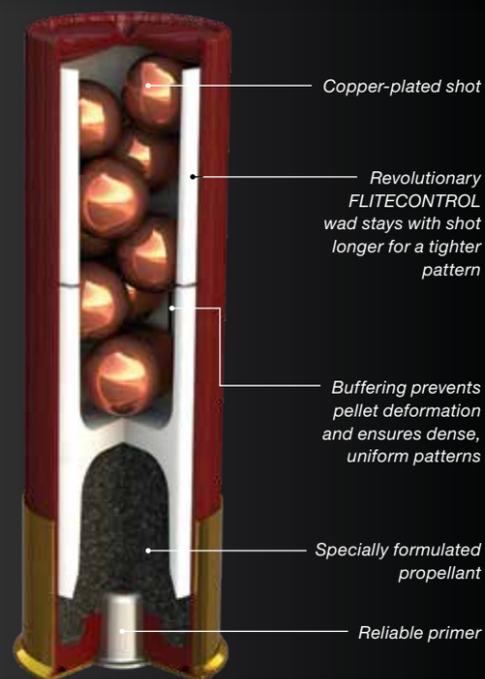
SCATTERGUN PATTERNS ARE FOR THE BIRDS

Buckshot often gets dismissed as the stuff of simple scatterguns, but at Federal®, we engineer these shotshells to provide the same superior performance as all of our other loads. Technologies like the FLITECONTROL® wad allow these loads to produce precise, deadly patterns.



TECHNOLOGIES

FLITECONTROL Wad*
Specially Formulated Propellant
*Specific loads only



Copper-plated shot

Revolutionary FLITECONTROL wad stays with shot longer for a tighter pattern

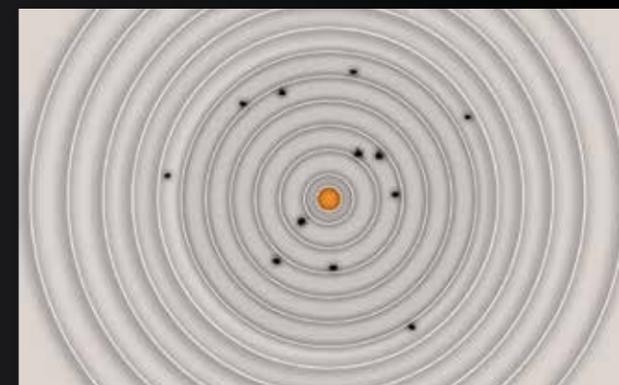
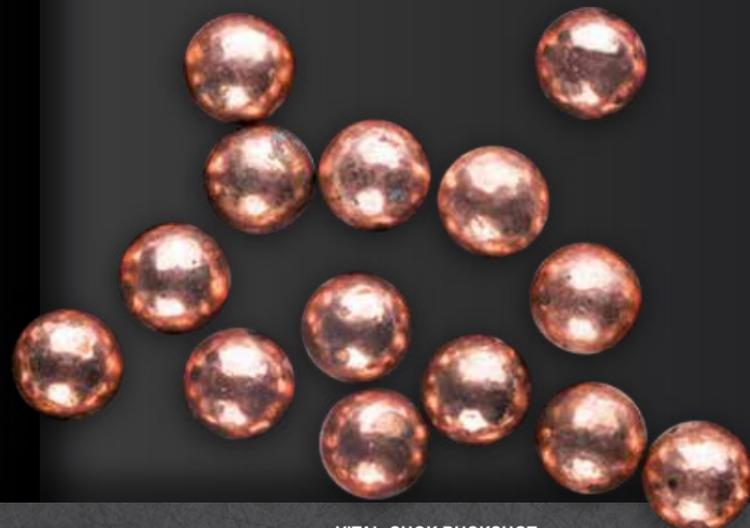
Buffering prevents pellet deformation and ensures dense, uniform patterns

Specially formulated propellant

Reliable primer

HEAVY METAL

Our precision-crafted buckshot pellets are perfectly round and resist deformation thanks to advanced copper plating. The results are extremely tight, consistent patterns.



REACH OUT AND TOUCH THEM

Vital-Shok Buckshot loads with the FLITECONTROL wad offer hunters tight long-range patterns. Target shot with 12-gauge 3-inch Vital-Shok Buckshot (PFC157 00) with a full choke at 30 yards; 12 hits and 12-inch spread.

BUCKSHOT SIZES

PELLET	DIA. INCHES	DIA. MM
No. 000	.36	9.14
No. 00	.33	8.38
No. 0	.32	8.13
No. 1	.30	7.62
No. 2	.27	6.86
No. 3	.25	6.35
No. 4	.24	6.10



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VITAL•SHOK BUCKSHOT WITH FLITECONTROL WAD

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD
PFC157 00	12	3	1325	12 Pellets - 00 Buck
PFC154 00	12	2¾	1325	9 Pellets - 00 Buck

VITAL•SHOK BUCKSHOT

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD
P108F 00	10	3½	1100	18 Pellets - 00 Buck
P135F 00	12	3½	1100	18 Pellets - 00 Buck
P158 4B	12	3	1100	41 Pellets - 4 Buck

VITAL•SHOK BUCKSHOT (CONT.)

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD
P158 000	12	3	1225	10 Pellets - 000 Buck	P258 2B	20	3	1100	18 Pellets - 2 Buck
P154 00	12	2¾	1325	9 Pellets - 00 Buck	P256 3B	20	2¾	1175	20 Pellets - 3 Buck
P156 00	12	2¾	1290	12 Pellets - 00 Buck					



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BLACK CLOUD®

NOW WITH TUNGSTEN SUPER SHOT

When birds fly high, tear them down from the sky. Black Cloud TSS carries on a lethal legacy, blending proven FLITESTOPPER® Steel pellets and 18 g/cc Tungsten Super Shot. With 56 percent higher density than lead and more than double the density of steel, TSS pellets maintain velocity farther, hit harder and penetrate deeper than any waterfowl payload ever has.



TECHNOLOGIES

- FLITECONTROL FLEX Wad
- FLITESTOPPER Steel Pellets
- Tungsten Super Shot*
- Clean, Temperature-Stable Propellant
- Catalyst Lead-Free Primer

*select loads only

NEW!

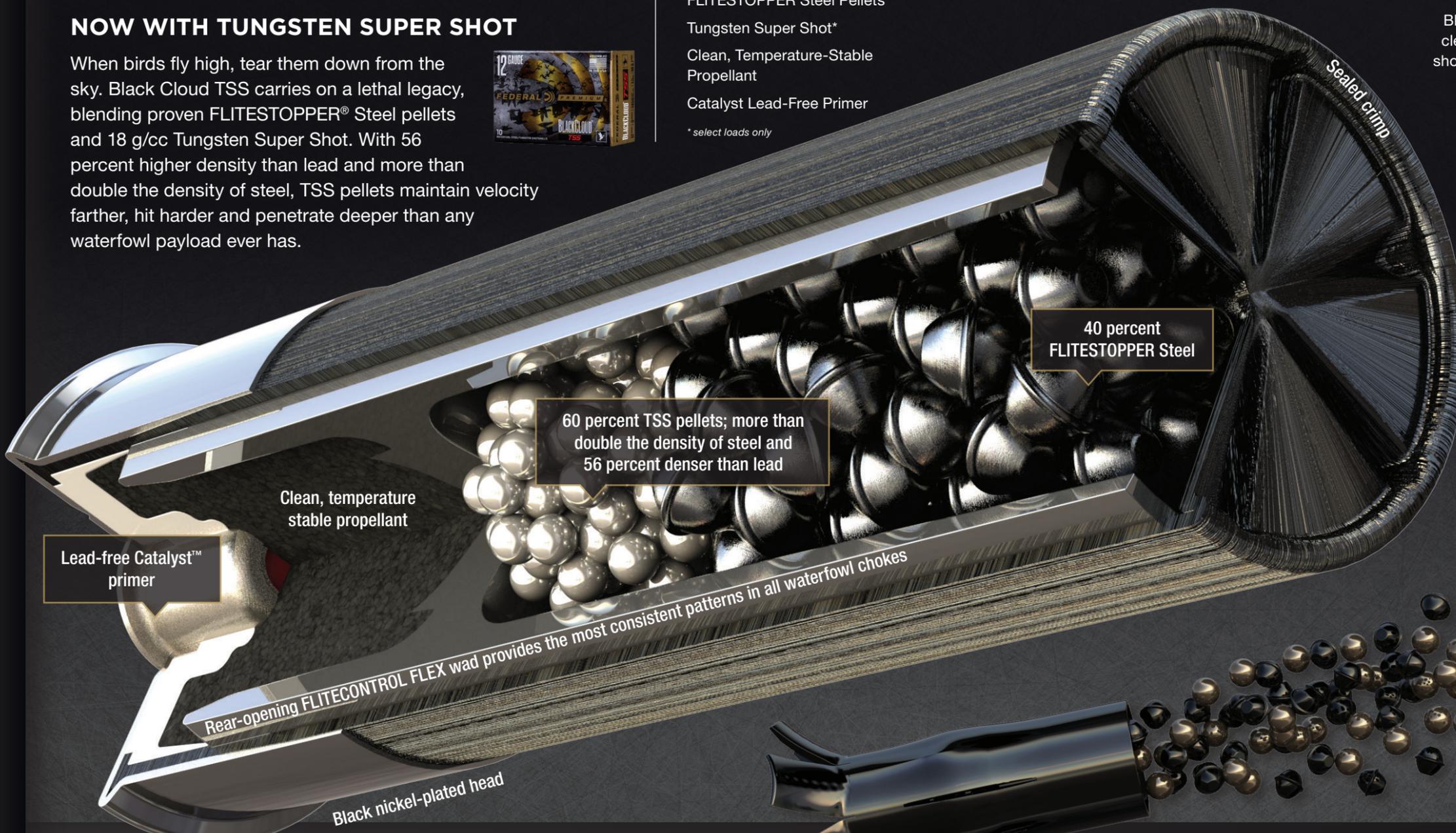
CLEAN & CONSISTENT

Black Cloud's highly efficient Catalyst lead-free primer and clean-burning propellant significantly decrease residue in a shotgun's barrel and action. The propellant is also extremely temperature stable, which translates to virtually identical velocities—and required leads—from warm early-season hunts to cold late-season ones.



PARTNER SPOTLIGHT: CHAD BELDING

Chad Belding, host of Federal Premium-sponsored "The Fowl Life," has built a reputation as a diehard duck and goose hunter who puts birds down in any situation. That's why he loads his shotgun with Black Cloud on every hunt. It's the only ammunition that delivers the lethal performance he needs.



40 percent FLITESTOPPER Steel

60 percent TSS pellets; more than double the density of steel and 56 percent denser than lead

Lead-free Catalyst™ primer

Clean, temperature stable propellant

Rear-opening FLITECONTROL FLEX wad provides the most consistent patterns in all waterfowl chokes

Black nickel-plated head

30 PERCENT BETTER PATTERNS THROUGH PORTED CHOKES*

Produce more efficient patterns through both ported chokes and standard tubes with the FLITECONTROL FLEX wad. Patent-pending rear-deploying petals feature reinforced gussets to allow them to deploy when fired through ported chokes that decrease muzzle pressure. Side-mounted slits stimulate the payload for separation from the wad at the ideal moment for consistent, deadly patterns.

*Claim based on 10-round average pattern efficiency comparison of PWB134 BB and PWBX134 BB shot through Patternmaster®, Indian Creek Black Diamond Triumph and Kick's High Flyer™ chokes at 40 yards.

CUTTING-EDGE TECHNOLOGY—LITERALLY

FLITESTOPPER Steel creates massive wound cavities visible in ballistic gelatin. Its amazing shot construction features a cutting edge that devastates on impact.

FLITECONTROL FLEX™ WAD



AVAILABLE LOADS

BLACK CLOUD FS STEEL

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT
PWBX107	10	3½	1375	1½	BB, 2
PWBX134	12	3½	1500	1½	BBB, BB, 1, 2, 3, 4
PWBX142	12	3	1450	1¼	BBB, BB, 1, 2, 3, 4

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT
PWBX147	12	2¾	1500	1½	BB, 2, 3, 4
PWBX209	20	3	1350	1	1, 2, 3, 4

BLACK CLOUD TSS

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT
NEW PWBTSX142 7BB	12	3	1450	1¼	BB FS Steel/7 TSS
NEW PWBTSX142 39	12	3	1450	1¼	3 FS Steel/9 TSS

BLACK CLOUD FS STEEL HIGH VELOCITY

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT
PWBXH143	12	3	1635	1½	BB, 1, 2, 3, 4

3RD DEGREE®



ONE LOAD—ANY RANGE

Federal Premium® 3rd Degree has redefined turkey shotshell performance once again with the addition of the FLITECONTROL FLEX™ wad and HEAVYWEIGHT Tungsten Super Shot shot. The system performs through standard and ported turkey chokes to deliver larger, more forgiving patterns at close range, while still providing deadly performance at longer distances.

TECHNOLOGIES

- FLITECONTROL FLEX Wad
- FLITESTOPPER® Lead Pellets
- HEAVYWEIGHT TSS Pellets

LONG-RANGE LETHALITY

The No. 7 HEAVYWEIGHT TSS and Premium lead portions of the 3rd Degree payload create dense, high-energy patterns at long range. Target shot at 40 yards with PTDX157 567 through a 28-inch barrel and a ported Indian Creek choke.

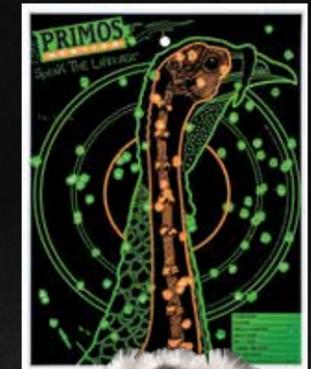


40 percent No. 7 HEAVYWEIGHT Tungsten Super Shot: Groups tightly at the pattern's center for long-range lethality

40 percent No. 5 Premium® lead: Creates a dense, deadly pattern at midrange

20 percent No. 6 FLITESTOPPER lead: Spreads quickly to create a forgiving close-range pattern

The FLITECONTROL FLEX wad works through both ported and standard turkey chokes



CLOSE-RANGE FORGIVENESS

The FLITESTOPPER lead portion of the 3rd Degree payload spreads quickly, creating forgiving patterns close up. Targets shot with a 28-inch barrel and Indian Creek ported turkey choke at 12 yards; yellow area denotes effective pattern size.



3rd Degree
PTDX157 567



Conventional lead turkey load,
1½-ounce No. 5 shot

PARTNER SPOTLIGHT: National Wild Turkey Federation

Federal has been a major sponsor of the National Wild Turkey Federation (NWTF) since its beginning, and our entire line of turkey loads including 3rd Degree, Grand Slam® and HEAVYWEIGHT® TSS feature the NWTF logo, so hunters can support NWTF with every box they purchase.



LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT
PTDX139 567	12	3½	1250	2	5-6-7
PTDX157 567	12	3	1250	1¾	5-6-7

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT
PTDX258 567	20	3	1100	1½	5-6-7

HEAVYWEIGHT[®] TSS

EXTREME RANGE GOBBLER-GETTER

Go beyond the limits of long range with Federal Premium[®] Ammunition's HEAVYWEIGHT TSS. The loads blend the skull-shattering 18 grams/cc density of Tungsten Super Shot pellets with the new FLITECONTROL FLEX[™] wad system to provide the tightest, most deadly patterns possible at extreme range. The rear-braking wad also works through both standard chokes and the most aggressive ported turkey tubes for even more consistent patterns.

TECHNOLOGIES

FLITECONTROL FLEX Wad*
HEAVYWEIGHT TSS Pellets

*Does not include .410 load, PTSS419F

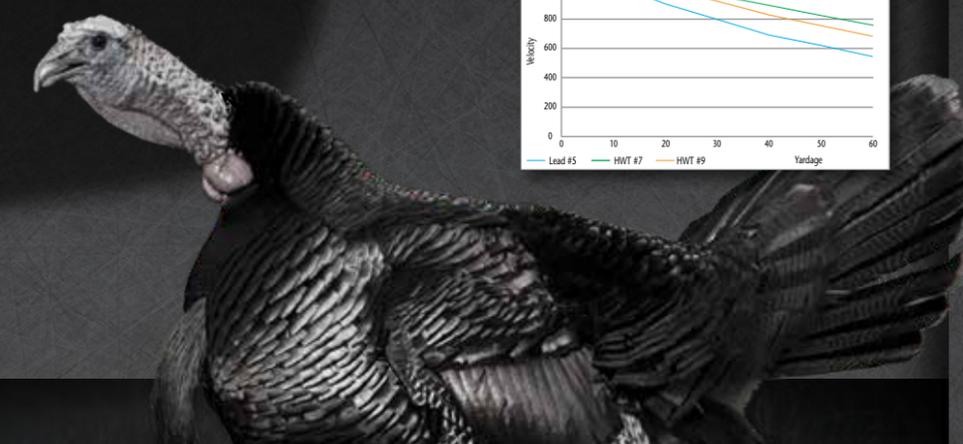
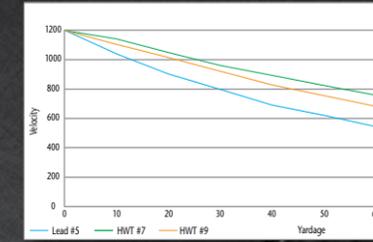
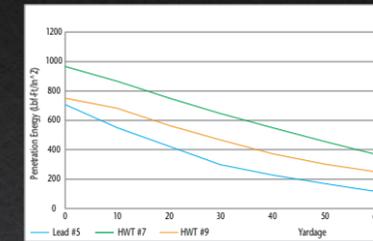


NEW!

18 g/cc
DENSITY

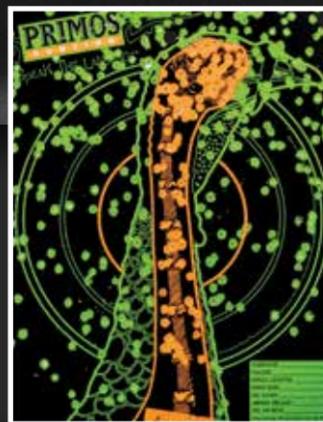
THE POWER OF HEAVYWEIGHT TSS

For the most powerful patterns possible, turn to HEAVYWEIGHT TSS. The No. 9 pellets have more penetration energy at 60 yards than No. 5 lead at 40 yards, with nearly the same velocity—all with a drastically higher pellet count.



MORE PELLETS THAN EVER BEFORE

New blended loads combine No. 7 and 9 or 8 and 10 Tungsten Super Shot. With some payloads topping 1,000 pellets, they put more hits on target than any turkey load in history. Target shot with 2 1/2-ounce load of No. 8 and 10 HEAVYWEIGHT TSS (PTSSX195F 810) at 40 yards through an Indian Creek .665 constriction choke.



.410 PERFORMER

With the increased power and pellet counts of HEAVYWEIGHT TSS loads, hunters can get the patterns of hard-kicking 12-gauge lead loads while using a low-recoil .410. Target shot at 40 yards with PTSS419F 9 through a fixed full choke. Load does not include the FLITECONTROL FLEX wad.

DENSITY MATTERS

The small shot sizes of HEAVYWEIGHT TSS payloads provide much higher pellet counts than comparable lead ones. For example, the 1 3/4-ounce No. 9 HEAVYWEIGHT TSS load (PTSSX193F 9) holds approximately 635 pellets—330 more than a No. 5 lead payload of the same weight. This means more pellets on target, especially at long range.

HEAVYWEIGHT TSS WITH FLITECONTROL FLEX WAD

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT	LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT
NEW PTSSX195F	12	3 1/2	1000	2 1/2	7/9, 8/10	NEW PTSSX295F	20	3	1000	1 5/8	7/9, 8/10
PTSSX191F	12	3 1/2	1200	2 1/4	7, 9	NEW PTSSX259F	20	3	1100	1 1/2	7, 9
PTSSX193F	12	3	1200	1 3/4	7, 9	PTSS419F	.410	3	1100	1 3/16	9

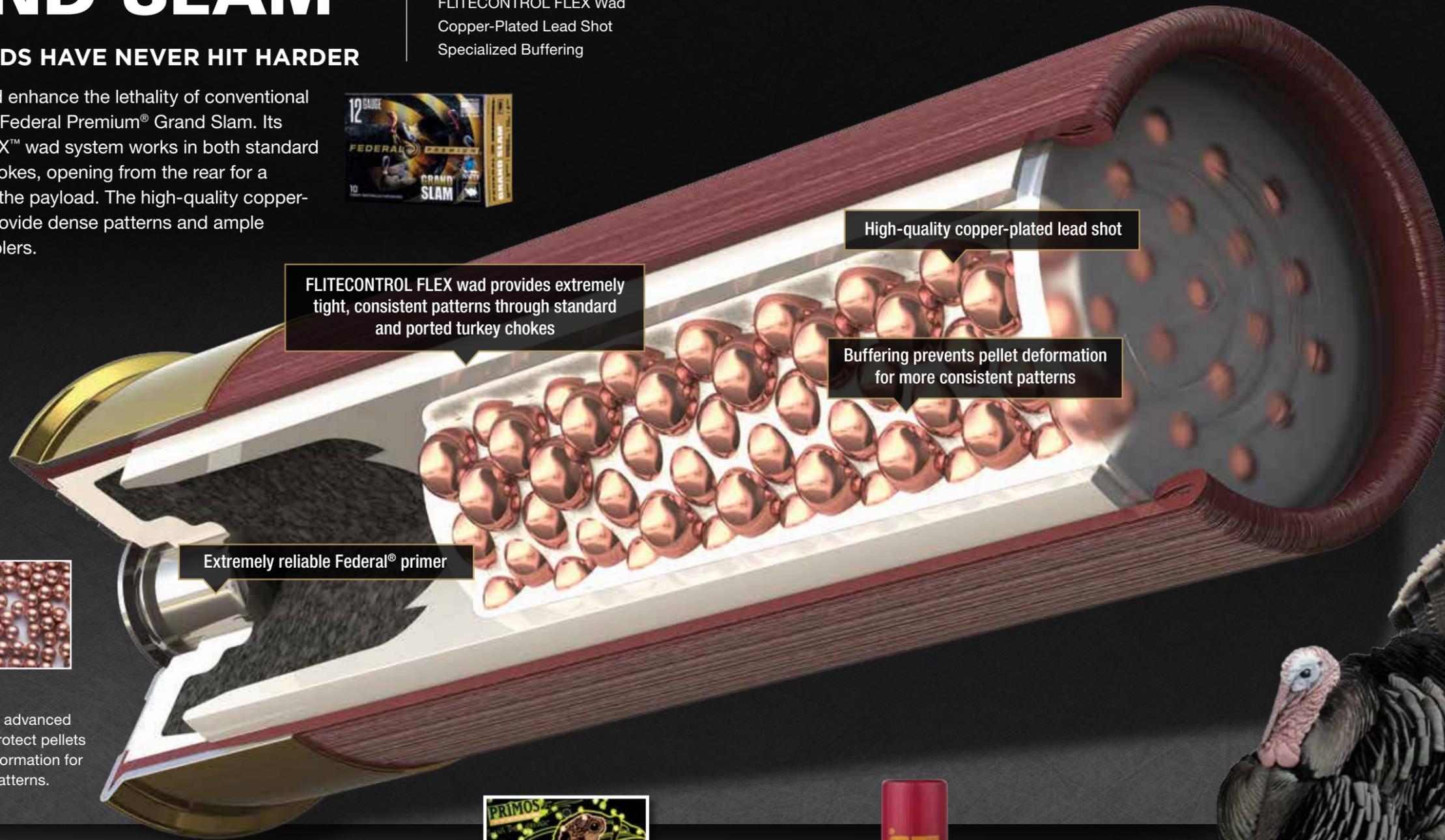
GRAND SLAM®

LEAD PAYLOADS HAVE NEVER HIT HARDER

Extend the range and enhance the lethality of conventional turkey payloads with Federal Premium® Grand Slam. Its FLITECONTROL FLEX™ wad system works in both standard and ported turkey chokes, opening from the rear for a controlled release of the payload. The high-quality copper-plated lead pellets provide dense patterns and ample energy to crush gobblers.

TECHNOLOGIES

FLITECONTROL FLEX Wad
Copper-Plated Lead Shot
Specialized Buffering



FLITECONTROL FLEX wad provides extremely tight, consistent patterns through standard and ported turkey chokes

High-quality copper-plated lead shot

Buffering prevents pellet deformation for more consistent patterns

Extremely reliable Federal® primer



BUFFER ZONE

New Grand Slam uses an advanced buffering compound to protect pellets at ignition, preventing deformation for better, more consistent patterns.

PATTERNS PERFECTED

Grand Slam's FLITECONTROL FLEX wad opens from the rear to create dense long-range patterns that knock down hung-up gobblers. Target shot with PFCX157F 5 through a ported Indian Creek choke at 40 yards.



SPUR TAPE

Instantly determine just how much to brag up your gobbler with Spur Tape—a feature on Grand Slam and all Federal Premium turkey loads. The measuring hash marks on the hull let you quickly measure spurs in the field and share with your jealous buddies.



GRAND SLAM WITH FLITECONTROL FLEX WAD

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT	LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT
PFCX101F	10	3½	1200	2	4, 5	PFCX156F	12	2¾	1200	1½	5
PFCX139F	12	3½	1200	2	4, 5, 6	PFCX258F	20	3	1185	1½/16	5
PFCX157F	12	3	1200	1¾	4, 5, 6						

PRAIRIE STORM®



THE ONLY THING BETTER THAN HEARING A CACKLE IS MAKING IT STOP

Pheasants are fast, tough birds. That's why we combined our FLITECONTROL® wad and FLITESTOPPER® pellet technologies to create Prairie Storm. Whether you choose steel or lead, the loads deliver consistent patterns that put more than 75 percent of their pellets in a 30-inch circle at 40 yards.

TECHNOLOGIES

FLITECONTROL Wad
FLITESTOPPER Pellets

Prairie Storm FS Lead™

70 percent Premium® copper-plated lead shot

30 percent FLITESTOPPER lead for even edge-to-edge patterns and bigger wound channels

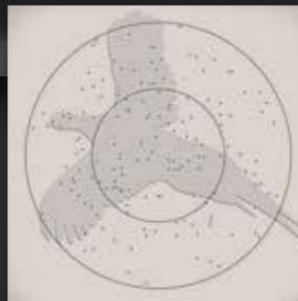
Specially formulated propellant

FLITECONTROL® wad's rear-braking design ensures dense, consistent patterns



STEEL ALTERNATIVE

Prairie Storm FS Steel® is the steel equivalent to your favorite upland load, with a payload of Premium brand steel (50 percent) and FLITESTOPPER Steel (50 percent). It provides the same pellet count and downrange velocity of popular lead loads.



HOLES IN THE BIRD, NOT THE PATTERN

PF154FS 4 puts more than 75 percent of its pattern in a 30-inch circle at 40 yards with a modified choke.

PARTNER SPOTLIGHT: Pheasants Forever

Since 1998, Federal® has supported Pheasants Forever with an on-box ammunition royalty program. For every box of Prairie Storm or Wing-Shok® you buy with the Pheasants Forever logo, Federal donates a portion of the proceeds to the organization's habitat and education programs. We've sold nearly 55 million of these special shotshells!



PRAIRIE STORM FS LEAD

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT	LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT
PF129FS	12	3	1350	1 5/8	4, 5, 6	PF258FS	20	3	1300	1 1/4	4, 5, 6
PF154FS	12	2 3/4	1500	1 1/4	4, 5, 6	PF204FS	20	2 3/4	1350	1	4, 5, 6

PRAIRIE STORM FS STEEL

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT
PFS143FS	12	3	1600	1 5/8	3, 4
PFS207FS	20	3	1500	7/8	3, 4



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AVAILABLE LOADS



71

AVAILABLE LOADS

PHEASANTS

HI-BIRD®

TAKES HIGH-FLYING BIRDS DOWN HARD

Hi-Bird uses a two-piece wad with SoftCell™ technology to decrease perceived recoil and produce more consistent long-range patterns. Plus, its lead shot is engineered for the optimum blend of hardness and density. The result is a dense pattern with more downrange energy—perfect for high-flying doves, crows, pigeons and upland birds.



TECHNOLOGIES

- Hard, Specially Formulated Lead Shot
- SoftCell Wad Technology

BETTER PATTERNS

Hi-Bird uses hard, highly uniform lead pellets to prevent deformation and create the most consistent, even patterns possible.



PARTNER SPOTLIGHT: Quail Forever

Federal is the official ammunition of Quail Forever. We're devoted to the organization's mission of conserving quail and other wildlife through habitat improvements, education and land management policies and programs. Learn more at quailforever.org.



WING-SHOK®

If you hunt upland birds, you work for every flush. So, when a bird gets up, make it happen with Federal Premium® Wing-Shok. The precision-built loads use extra-hard copper-plated lead shot, Federal Premium hulls and brass-plated heads for peak performance.

HI-BIRD

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT
HVF12H	12	2¾	1330	1¼	4, 5, 6, 7.5, 8
HVF12	12	2¾	1275	1½	6, 7.5, 8

WING-SHOK MAGNUM

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT
P156	12	2¾	1315	1½	4, 6
P165	16	2¾	1260	1¼	4, 6
P258	20	3	1300	1¼	4, 5, 6
P256	20	2¾	1175	1½	4, 6

WING-SHOK HIGH VELOCITY

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT
P129	12	3	1350	1½	4, 5, 6
P128	12	2¾	1500	1½	4, 6, 7.5
P138	12	2¾	1500	1½	4, 5, 6
P283	28	2¾	1295	¾	6, 7.5, 8

WING-SHOK PHEASANTS FOREVER HIGH VELOCITY

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT
PF154	12	2¾	1500	1¼	4, 5, 6, 7.5
PF163	16	2¾	1425	1½	4, 5, 6
PF204	20	2¾	1350	1	4, 5, 6, 7.5



GOLD MEDAL GRAND®

LEAVE OTHERS IN THE DUST

The look, feel and performance of Gold Medal® Paper shotshells made them the favorite of the most serious clay target shooters. Now there's an even better option—Gold Medal Grand Paper. The loads combine Federal Premium® Ammunition's classic paper hull with less felt recoil and harder shot.



TECHNOLOGIES

- PrimerLock® Head*
- SoftCell™ Wad
- Reloadable Hull
- Specially Formulated Propellant
- * Gold Medal Grand Plastic only

PARTNER SPOTLIGHT: USA SHOOTING



When America's best clay target shooters compete on the world stage, they make a simple choice. Gold Medal Grand Paper, only from Federal—the official shotshell ammunition of USA Shooting. Learn more at usashooting.org.

Official Sponsor



NEW!

COMPETITION CLAY TARGET



Two-piece wad utilizes SoftCell technology to decrease perceived recoil and produce more uniform patterns than one-piece designs

Lead shot is engineered for the optimum blend of hardness and density for even patterns and maximum downrange power

Rigid PrimerLock head improves primer sensitivity, ensuring proper ignition in the event of a light hit; Gold Medal Grand Paper uses a high-quality brass head

Integral base wad maximizes reloadability



SHOCK ABSORBER

Gold Medal Grand's two-piece wad creates an air pocket that absorbs energy and delays the compression process. The result is recoil that hits the shooter's shoulder later and with less force.

SOFTER ON YOU. HARDER ON TARGETS.

Gold Medal Grand's specially formulated shot offers the hardness of 5 percent antimony lead while maintaining the density needed to hit targets hard at long range. Its SoftCell wad technology also slashes felt recoil and improves pattern consistency.

GOLD MEDAL GRAND

For decades, Gold Medal shotshells have set the standard for competitive trap, skeet and sporting clays shooters. Gold Medal Grand Plastic produces less felt recoil, more reliable ignition and improved shot hardness—all with the same world-class performance shooters expect from Federal Premium Ammunition.



GOLD MEDAL GRAND

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	DRAM	PAYLOAD	SHOT
NEW GMT119	12	2¾	1335	3¼	24 gram	7.5, 9
GMT113	12	2¾	1180	2¾	1	7.5, 8
GMT114	12	2¾	1100	Extra-Lite	1⅛	7.5, 8
GMT115	12	2¾	1145	2¾	1⅛	7.5, 8
GMT116	12	2¾	1200	3	1⅛	7.5, 8
GMT178	12	2¾	1235	HDCP	1⅛	7.5, 8

GOLD MEDAL PLASTIC

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	DRAM	PAYLOAD	SHOT
T206	20	2¾	1200	2½	7/8	8, 9
T280	28	2¾	1230	2	¾	8.5, 9
T412	410	2½	1230	Max.	½	8.5, 9

GOLD MEDAL GRAND PAPER

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	DRAM	PAYLOAD	SHOT	LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	DRAM	PAYLOAD	SHOT
GMT175	12	2¾	1180	2¾	1	8	GMT118	12	2¾	1200	3	1⅛	7.5, 8
GMT117	12	2¾	1145	2¾	1⅛	7.5, 8	GMT171	12	2¾	1235	HDCP	1⅛	7.5, 8

B.O.R. LOCK MZ[®] SYSTEM

**EASY TO LOAD.
HARD TO MISS.**

The B.O.R. Lock MZ System has changed muzzleloading. No detaching sabot, no belt—it's a whole new class of bullet. Consistent. Accurate. Easy to load. Its exclusive, Colorado-legal system efficiently engages the rifling and seals the bore, optimizing velocity and accuracy.

WE FLATTEN TRAJECTORIES —NOT BULLETS

Most lead muzzleloader bullets are soft and flatten on impact. The Federal Premium Lead Muzzleloader Bullet, however, offers controlled expansion and high weight retention to penetrate more than 20 inches through ballistics gel.



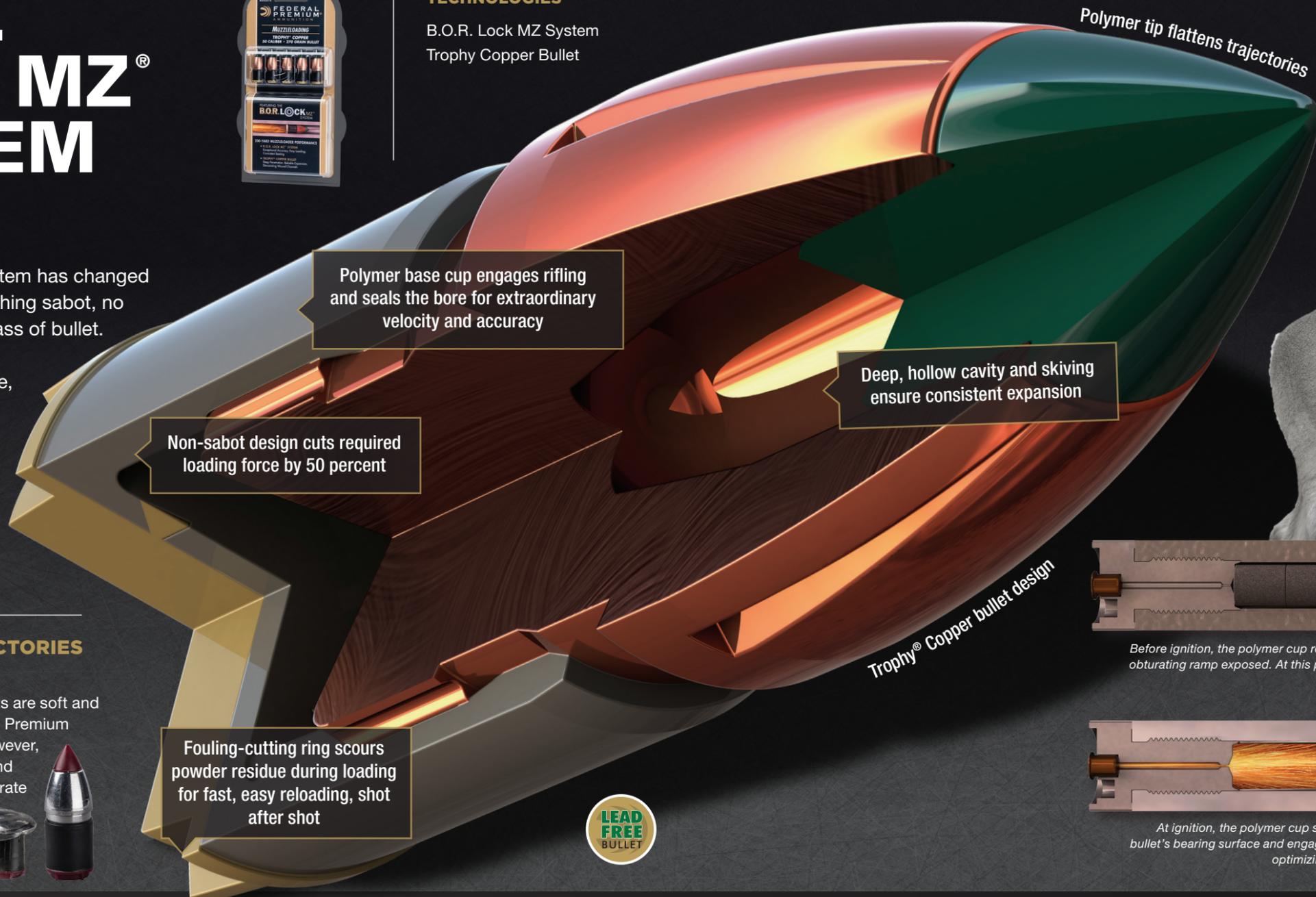
EXPANSION THAT DOESN'T SACRIFICE PENETRATION

The Trophy Copper Muzzleloader Bullet's nose skiving ensures full expansion at a wide range of velocities and through tough tissue like bone. Gel block shot with a 270-grain bullet (PMZ50TC1) through a Traditions™ Vortek™ rifle with 100 grains of pelletized powder at 100 yards.



TECHNOLOGIES

B.O.R. Lock MZ System
Trophy Copper Bullet



Polymer base cup engages rifling and seals the bore for extraordinary velocity and accuracy

Non-sabot design cuts required loading force by 50 percent

Fouling-cutting ring scours powder residue during loading for fast, easy reloading, shot after shot

Deep, hollow cavity and skiving ensure consistent expansion

Polymer tip flattens trajectories

Trophy[®] Copper bullet design



PRE-IGNITION



Before ignition, the polymer cup remains positioned at the rear of the bullet, with the forward obturating ramp exposed. At this point, only the fiber-reinforced base of the cup is in contact with the barrel.

IGNITION



At ignition, the polymer cup slides forward and over both obturating ramps, creating the bullet's bearing surface and engaging the rifling. The resulting gas seal is incredibly efficient, optimizing accuracy, velocity, consistency and shooter confidence.

BLAST OFF

Ignition is everything in muzzleloading. That's why Federal Premium[®] has developed the 209 Muzzleloading Primer to complement its line of B.O.R. Lock MZ bullets. The formulation provides superior resistance to moisture and hot, reliable ignition of both granulated powder and pellets in any conditions—without causing the excessive fouling in the breech area typical of standard shotshell primers.



TROPHY COPPER MUZZLELOADER BULLET WITH B.O.R. LOCK MZ

LOAD NO.	CALIBER	GR.
PMZ50TC1*	50	270

LEAD MUZZLELOADER BULLET WITH B.O.R. LOCK MZ

LOAD NO.	CALIBER	GR.
PMZ50LMZ1	50	350

MUZZLELOADING PRIMER

PART NO.	TYPE
PMZ209	209

*For best performance, use with magnum primers.

HUNTER MATCH™



TECHNOLOGIES

- Hunter Match bullet
- Nickel-plated case
- Specially formulated propellant

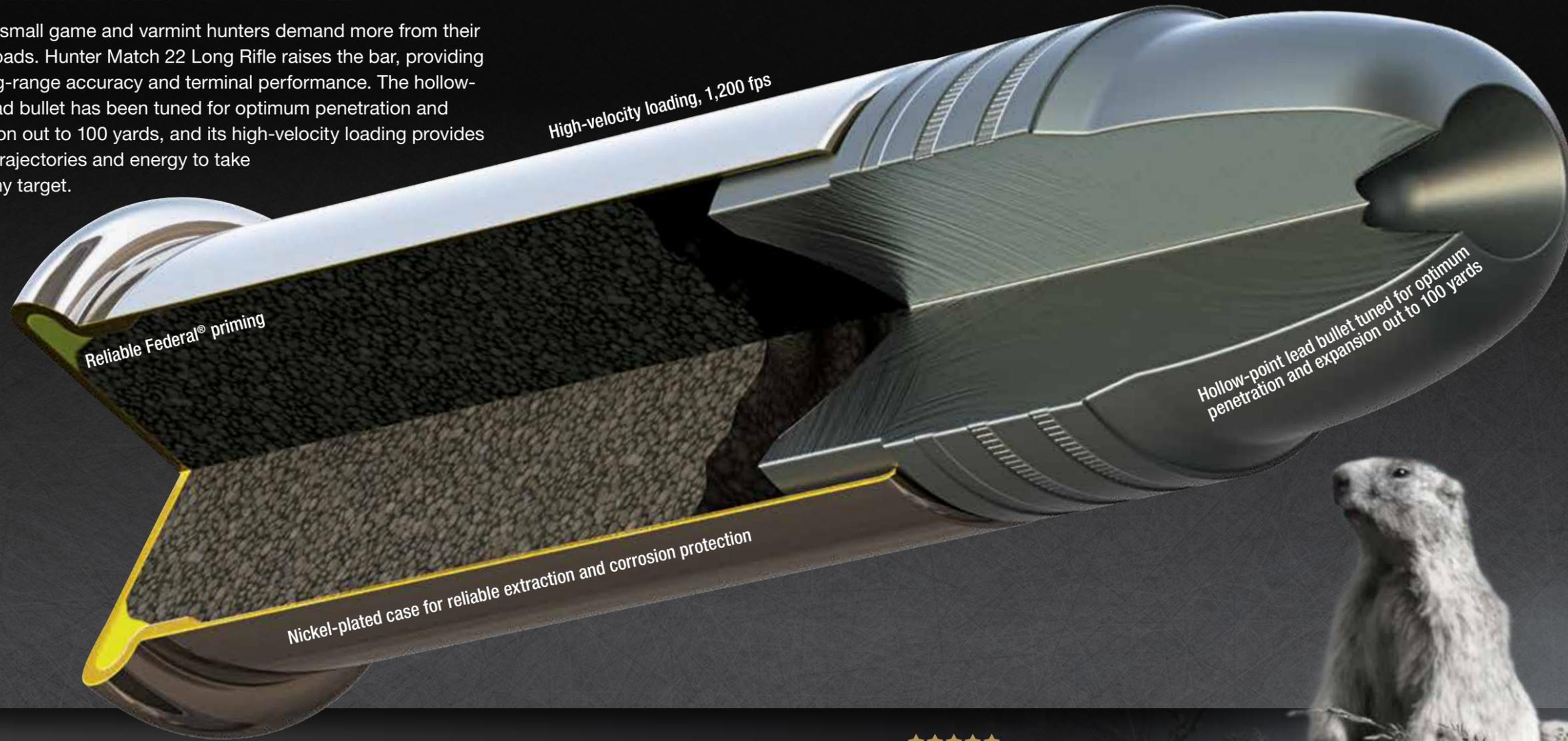
100-YARD EXPANSION

The Hunter Match bullet's hollow-point design expands reliably out to 100 yards, making it a true long-range hunting option for 22 Long Rifle.



LONG RANGE MEETS LONG RIFLE

Serious small game and varmint hunters demand more from their rimfire loads. Hunter Match 22 Long Rifle raises the bar, providing true long-range accuracy and terminal performance. The hollow-point lead bullet has been tuned for optimum penetration and expansion out to 100 yards, and its high-velocity loading provides the flat trajectories and energy to take down any target.



SQUIRREL SNIPER

Hunter Match's high velocity and supreme consistency result in unmatched long-range terminal performance from the 22 LR platform.



Best 22 Rimfire Ammo I've Used

No misfires, awesome accuracy. I shoot lots of ammo out of this rifle and I've been very happy with this load #720. I'm getting good hits out beyond 200 meters. I like it, but the prairie dogs don't.

Yes, I recommend this product.

RATINGS & REVIEWS

We make it easy to review ammunition online and check out the ratings of others. Go to federalpremium.com.



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AVAILABLE LOADS

HUNTER MATCH			
LOAD NO.	CALIBER	GR.	BULLET
720	22 LR	40	HUNTER MATCH HP

SMALL GAME • LONG RANGE



79

GET FULL BALLISTICS ON PAGES 94-107.

V•SHOK® RIMFIRE



TECHNOLOGIES

- Speer® TNT® bullet*
- Fluted jacket*
- Specially formulated propellant
- *Specific loads only

EXPLODED VIEW

A light jacket folded around a compressed core gives the Speer TNT explosive expansion on impact as well as pinpoint accuracy.



★★★★★
Best Accuracy For A 22 Mag

"I tried this round several years ago, and was so impressed with the accuracy I went back and bought 20 more boxes. Five rounds in a dime-sized group. Not bad for a hunting rifle."

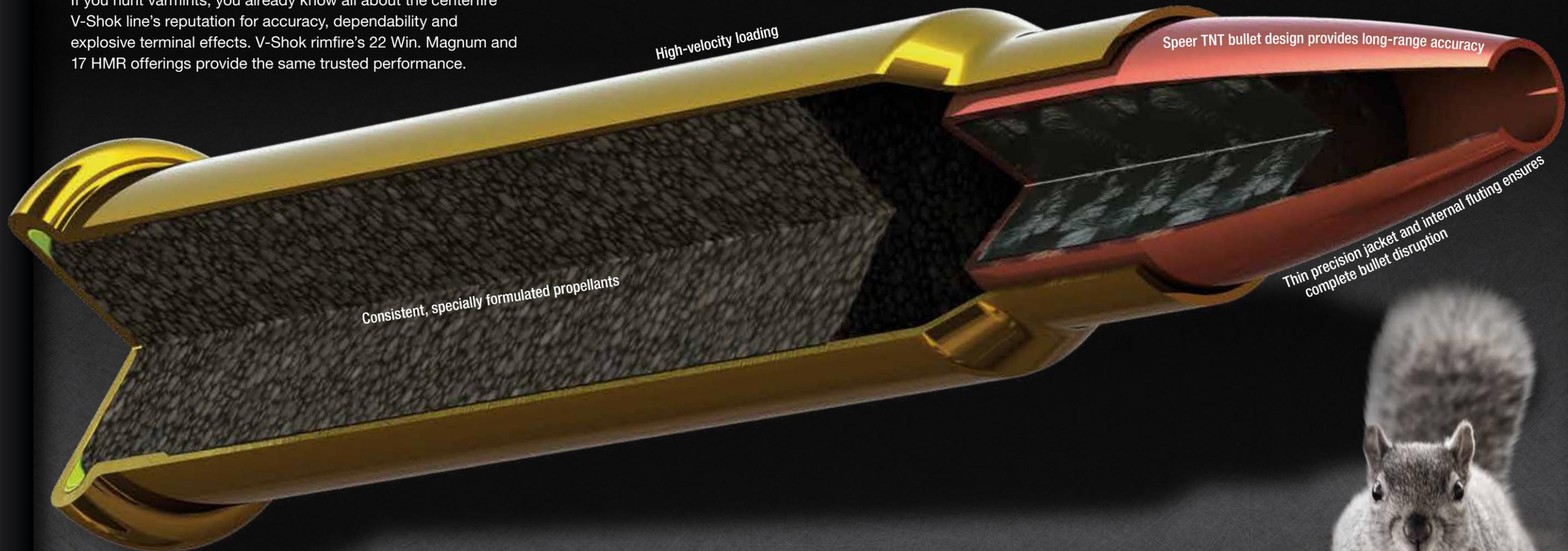
✓ **Yes, I recommend this product.**

RATINGS & REVIEWS

We make it easy to review ammunition online and check out the ratings of others. Go to federalpremium.com.

LOADS THAT REDEFINE RIMFIRE

If you hunt varmints, you already know all about the centerfire V-Shok line's reputation for accuracy, dependability and explosive terminal effects. V-Shok rimfire's 22 Win. Magnum and 17 HMR offerings provide the same trusted performance.



NOTHING SMALL ABOUT THIS RIMFIRE

The Speer TNT JHP bullet expands rapidly on impact to quickly take down varmints. Gelatin shot with P770 17-grain 17 HMR from a Savage™ A17 at 100 yards.



PARTNER SPOTLIGHT: Youth Programs

Despite record high demand for rimfire ammunition, Federal® has set aside more than 20 million rounds each of the past five years for youth programs such as Boy Scouts camps, 4-H shooting sports teams, junior rifle programs, and the NRA Youth Hunter Ed Challenge.



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AVAILABLE LOADS

V-SHOK RIMFIRE							
LOAD NO.	CALIBER	GR.	BULLET	LOAD NO.	CALIBER	GR.	BULLET
P770	17 HMR	17	SPEER TNT JHP	P765	22 WIN. MAGNUM	30	SPEER TNT HP
P771	17 HMR	17	HORNADY V-MAX®				



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GET FULL BALLISTICS ON PAGES 94-107.

VARMINTS • MEDIUM RANGE

FEDERAL RELOADING

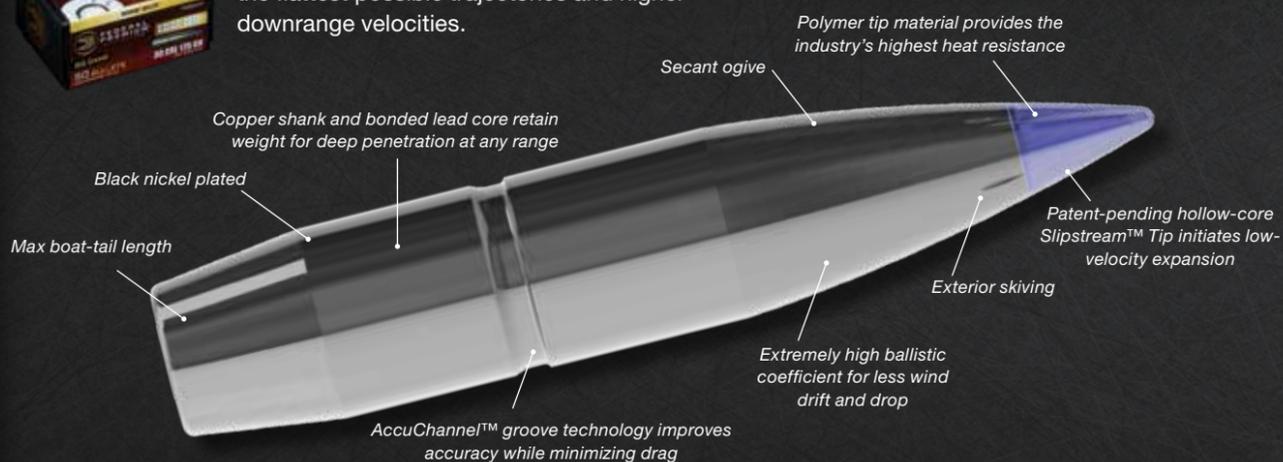
PRECISION HANDLOADS START HERE

We've always loaded Federal ammunition with the industry's finest components, and for years we've provided the same world-renowned brass, primers and wads to handloaders. We're proud to now offer a full line of top bullet designs as components for reloading. Find load data for all bullets at federalpremium.com.

NEW! EDGE TLR

Edge TLR® expands reliably at velocities as low as 1,400 feet per second, yet it also retains most of its weight and penetrates deep on close targets. The match-accurate bullet's sleek profile offers some of the highest ballistic coefficients in its class for the flattest possible trajectories and higher downrange velocities.

PART NO.	DIAMETER	GR.	BALLISTIC COEFFICIENT	
			G1	COUNT
PB277ETLR1	270 CAL., .277"	136	0.508	50
PB284ETLR1	7MM, .284"	155	0.610	50
PB308ETLR1	30 CAL., .308"	175	0.536	50
PB308ETLR2	30 CAL., .308"	200	0.625	50

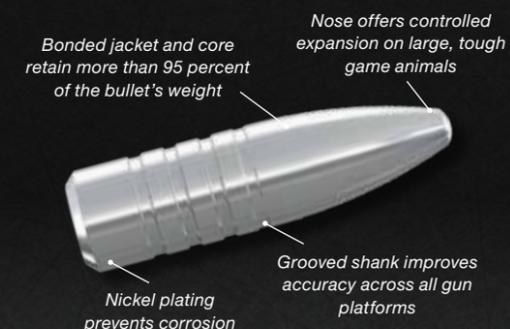


NEW! TROPHY BONDED BEAR CLAW

The world-famous Trophy Bonded Bear Claw® is a deadly-reliable bullet from Africa to Alaska, and now it's available to handloaders in the most popular bullet diameters for large and dangerous game. Its bonded jacket and core provide controlled expansion and retain more than 95 percent of the bullet's weight to penetrate deep.



PART NO.	DIAMETER	GR.	COUNT
PB375TBBC250	375 CAL., .375"	250	25
PB375TBBC300	375 CAL., .375"	300	25
PB416TBBC400	416 CAL., .416"	400	25
PB458TBBC500	458 CAL., .458"	500	25
PB474TBBC500	474 CAL., .474"	500	25



NEW! TROPHY BONDED SLEDGEHAMMER SOLID

The Trophy Bonded Sledgehammer® Solid's time-tested design bonds a lead core to a thick brass jacket to achieve bone-crushing penetration on the toughest, most dangerous game on the planet. Its flat nose minimizes deflection for a straight, deep wound cavity, and the grooved shank improves accuracy across an array of rifle platforms.

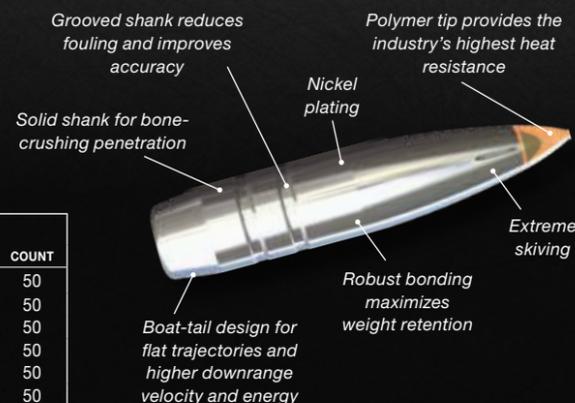


NEW! TROPHY BONDED TIP

The Trophy Bonded® Tip's proven design stands apart from all other big game bullets, combining bonded construction, a bone-crushing solid copper shank, boat-tail design and a high-performance polymer tip that tightens groups at long range.



PART NO.	DIAMETER	GR.	BALLISTIC COEFFICIENT	
			G1	COUNT
PB277TT130	270 CAL., .277"	130	0.440	50
PB277TT140	270 CAL., .277"	140	0.455	50
PB284TT140	7MM, .284"	140	0.430	50
PB284TT160	7MM, .284"	160	0.520	50
PB308TT165	30 CAL., .308"	165	0.450	50
PB308TT180	30 CAL., .308"	180	0.500	50

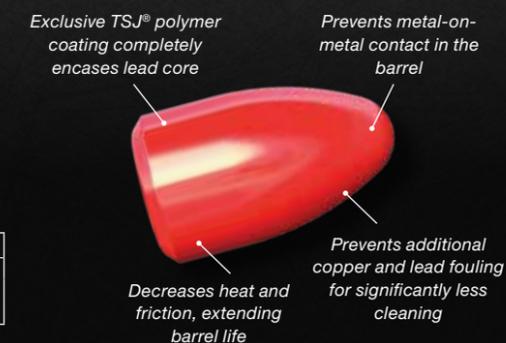


NEW! SYNTECH TSJ

With an exclusive Total Synthetic Jacket that prevents additional copper fouling and decreases heat and friction, Syntech bullets have redefined the range. The advanced projectiles provide clean, accurate, consistent performance, as well as less splash-back on steel targets.



PART NO.	DIAMETER	GR.	COUNT
AE9SJCBI	9MM, .355"	115	100
AE40SJCBI	40 CAL., .400"	165	100
AE45SJCBI	45 CAL., .451"	230	100



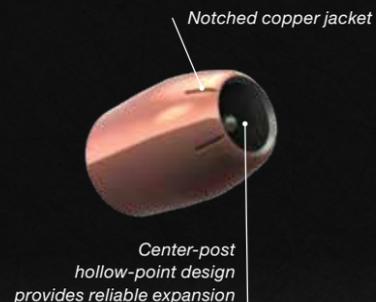
NEW!

NEW! HYDRA-SHOK

The bullet design that's defined self-defense for a generation is now available as a component for handloaders. Introduced in 1989, Hydra-Shok® remains one of the most popular choices for protecting home and family, thanks to a proven hollow point and iconic center post that provide extremely consistent and effective expansion.



PART NO.	DIAMETER	GR.	COUNT
PB38HS129	38 CAL., .357"	129	100
PB9HS124	9MM, .355"	124	100
PB9HS147	9MM, .355"	147	100
PB357HS158	357 CAL., .357"	158	100
PB40HS165	40 CAL., .400"	165	50
PB40HS180	40 CAL., .400"	180	50
PB45HS185	45 CAL., .451"	185	50
PB45HS230	45 CAL., .451"	230	50

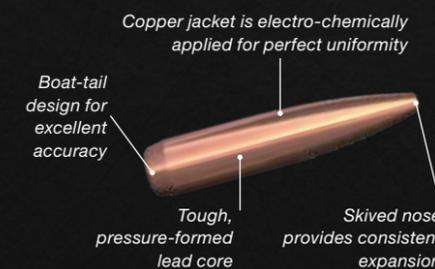


NEW! FUSION

Handloaders can now roll their own with the bullet design that changed hunting ammunition forever. Fusion® component bullets provide the largest expansion and highest weight retention in their class. With a molecularly fused jacket and a pressure-formed core, Fusion transfers maximum energy on target and provides tag-filling accuracy.



PART NO.	DIAMETER	GR.	COUNT
FB264F2	6.5MM, .264"	140	100
FB277F2	270 CAL., .277"	130	100
FB277F4	270 CAL., .277"	150	100
FB284F1	7MM, .284"	140	100
FB284F3	7MM, .284"	160	100
FB284F4	7MM, .284"	175	100
FB308F1	30 CAL., .308"	150	50
FB308F4	30 CAL., .308"	180	50
FB338F1	338 CAL., .338"	200	50
FB338F2	338 CAL., .338"	225	50



FEDERAL PREMIUM UNPRIMED BRASS

Reloaders who insist on the best trust Federal Premium® brass cases. We now offer a wide variety of unprimed brass for a full range common rifle and handgun cartridges, including 224 Valkyrie.



GOLD MEDAL

Our primers are the best in the industry, thanks to a unique priming mix, fine-tuned manufacturing processes and tight tolerances. And the 12C5 wad offers shotshell reloaders SoftCell™ technology to reduce felt recoil while producing consistent patterns.



CHAMPION COMPONENTS

Create effective handloads to meet any application and budget with Champion® primers and wads.



UNPRIMED BRASS		
PART NO.	CALIBER	COUNT
PR223UPB100	223 REM.	100
PR22250UPB100	22-250 REM.	100
PR224VLKUPB100	224 VALKYRIE	100
PR243UPB50	243 WIN.	50
NEW PR65GDLUPB50	6.5 GRENDDEL	50
NEW PR65CRDUPB50	6.5 CREEDMOOR	50
PR270UPB50	270 WIN.	50
PR270WSMUPB50	270 WSM	50
PR7UPB50	7MM REM. MAGNUM	50
PR3030UPB50	30-30 WIN.	50
PR308UPB50	308 WIN.	50
PR3006UPB50	30-06 SPRG.	50
PR300UPB50	300 WIN. MAGNUM	50
PR300WSMUPB50	300 WSM	50
PR338FUPB50	338 FEDERAL	50
PH327UPB100	327 FEDERAL	100
PH9UPB100	9MM LUGER	100
PH40UPB100	40 S&W	100
PH45UPB100	45 AUTO	100

CENTERFIRE PRIMERS			
PART NO.	TYPE	USE	NOMINAL DIA.
GM100M	Small Pistol Match	Std. Velocity Pistol and Revolver	.175
GM150M	Large Pistol Match	Std. and Magnum Pistol and Revolver	.210
GM155M	Large Magnum Pistol Match	Magnum Revolver	.210
GM200M	Small Magnum Pistol Match	High Velocity and Magnum Pistol and Revolver	.175
GM205M	Small Rifle Match	Small Rifle	.175
GM210M	Large Rifle Match	Large Rifle	.210
GM215M	Large Magnum Rifle Match	Magnum Rifle	.210

AR CENTERFIRE PRIMERS			
PART NO.	TYPE	USE	NOMINAL DIA.
GM205MAR	Small Rifle AR Match	Small Rifle AR	.175

WADS			
PART NO.	TYPE	USE	NOMINAL DIA.
12C5	12 Gauge	1 1/8 oz. loads	

CENTERFIRE PRIMERS			
PART NO.	TYPE	USE	NOMINAL DIA.
100	Small Pistol	Std. velocity pistol and revolver	.175
150	Large Pistol	Std. and magnum pistol and revolver	.210
155	Large Magnum Pistol	Magnum revolver	.210
200	Small Magnum Pistol	High velocity and magnum pistol and revolver	.175
205	Small Rifle	Small rifle	.175
210	Large Rifle	Large rifle	.210
215	Large Magnum Rifle	Magnum rifle	.210

SHOTSHELL PRIMERS			
PART NO.	TYPE	USE	NOMINAL DIA.
209A	Shotshell	10, 12, 20, 28 gauge and .410 bore	.243

WADS		
PART NO.	TYPE	USE
12S0	12 Gauge	7/8 and 1 oz. loads in Gold Medal target shells
12S4	12 Gauge	1 1/4 oz. loads in Gold Medal target and hunting shells
20S1	20 Gauge	7/8 and 1 oz. in all loads
28S1	28 Gauge	3/4 oz. loads
410SC	.410 Bore	1/2 oz. loads (shot cup only)



NEW!

DEER • MEDIUM GAME



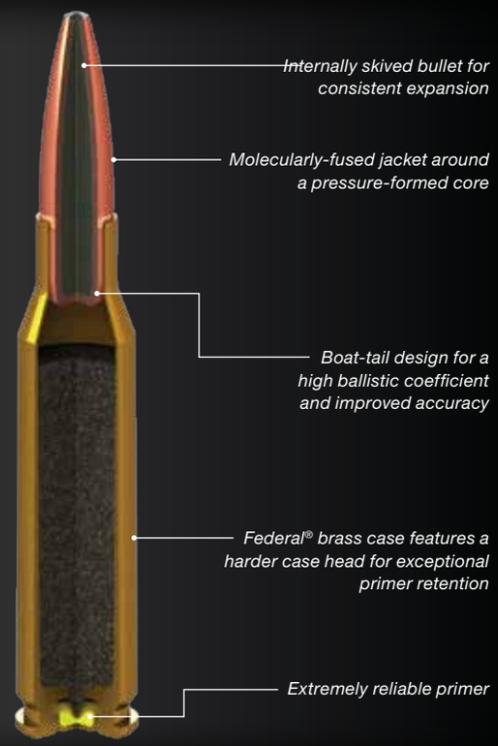
FUSION[®]

DROP DEAD LEAD

With a molecularly fused jacket and a pressure-formed core that provides deep penetration and stopping power, Fusion delivers best-in-class weight retention and expansion to transfer maximum energy on target. Available in Fusion Rifle, Handgun and MSR, including all-new 450 Bushmaster.

NOW AVAILABLE AS A
COMPONENT BULLET

See page 85



Internally skived bullet for consistent expansion

Molecularly-fused jacket around a pressure-formed core

Boat-tail design for a high ballistic coefficient and improved accuracy

Federal[®] brass case features a harder case head for exceptional primer retention

Extremely reliable primer

FUSION RIFLE

Fusion was the first rifle ammunition specifically built for deer hunting—and it's still the best, offering the largest expansion and highest weight retention in head-to-head comparisons of F3006FS1 and leading deer hunting rifle ammunition of the same bullet weight.*

*Three-shot averages fired into bare 10 percent ballistic gelatin at 100 yards through a 22-inch barrel.



Gelatin shot with 165-grain 30-06 Spring, Fusion (F3006FS2) at 100 yards.

FUSION MSR

The modern sporting rifle isn't just some gun. It's a highly adapted hunting machine, and it needs ammunition that's just as customized: Fusion MSR. From primer to projectile, virtually every component is optimized for use in modern sporting rifles and peak ballistic performance through short barrels.



FUSION HANDGUN

Fusion Handgun bullets feature the same molecularly fused construction as their rifle counterparts for the toughness, accuracy and terminal performance short-barrel hunters need. The loads' bullet weights and velocities have also been optimized to be lethal on deer without punishing the shooter.



FUSION MSR

LOAD NO.	CALIBER	GR.
F223MSR1	223 REM.	62
F224VLKMSR1	224 VALKYRIE	90
F65GDLMRSR1	6.5 GRENDDEL	120
F68MSR1	6.8 SPC	115
F68MSR2	6.8 SPC	90
F300BMSR2	300 BLACKOUT	150
F308MSR1	308 WIN.	150
F338FMSR2	338 FEDERAL	185

FUSION HANDGUN

LOAD NO.	CALIBER	GR.
F357FS1	357 MAGNUM	158
F44FS1	44 REM. MAGNUM	240
F454FS1	454 CASULL	260
F460FS1	460 S&W	260
F500FS2	500 S&W	325
F50AEFS1	50 ACTION EXPRESS	300



AVAILABLE LOADS

LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.
F223FS1	223 REM.	62	F6555FS1	6.5X55 SWEDISH	140	F280FS1	280 REM.	140
F22250FS1	22-250 REM.	55	F270FS1	270 WIN.	130	F7RFS1	7MM REM. MAGNUM	150
F243FS1	243 WIN.	95	F270FS2	270 WIN.	150	F7RFS2	7MM REM. MAGNUM	175
F2506FS1	25-06 REM.	120	F270WSMFS1	270 WIN. SHORT MAGNUM	150	F7WSMFS1	7MM WIN. SHORT MAGNUM	150
F260FS1	260 REM.	120	F708FS2	7MM-08 REM.	120	F76239FS1	7.26X39MM	123
F65CRDFS1	6.5 CREEDMOOR	140	F708FS1	7MM-08 REM.	140	F3030FS1	30-30 WIN.	150

FUSION RIFLE

LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.
F3030FS2	30-30 WIN.	170	F3006FS3	30-06 SPRING.	180	F300WSMFS2	300 WIN. SHORT MAG.	180
F308FS1	308 WIN.	150	F300WFS1	300 WIN. MAGNUM	150	F338FFS2	338 FEDERAL	200
F308FS2	308 WIN.	165	F300WFS2	300 WIN. MAGNUM	165	F338FS1	338 WIN. MAGNUM	225
F308FS3	308 WIN.	180	F300WFS3	300 WIN. MAGNUM	180	F35FS1	35 WHELEN	200
F3006FS1	30-06 SPRING.	150	F300WSMFS3	300 WIN. SHORT MAGNUM	150	F4570FS1	45-70 GOVERNMENT	300
F3006FS2	30-06 SPRING.	165	F300WSMFS1	300 WIN. SHORT MAGNUM	165	NEW F450BMFS1	450 BUSHMASTER	300

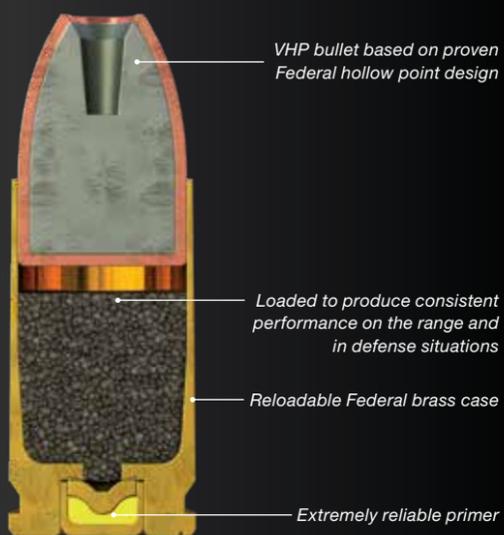
GET FULL BALLISTICS ON PAGES 94-107.



TRAIN + PROTECT™

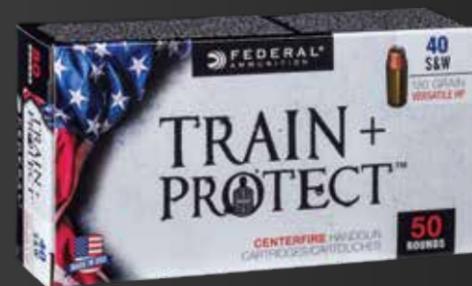
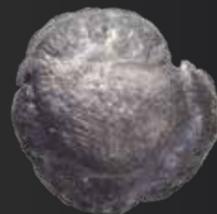
PRACTICE MADE PERFECT

Federal® Train + Protect proudly honors the American birthright to bear arms with a VHP™ bullet design that provides both precise, practical performance at the range, and instant, reliable expansion on impact. The result is the ideal combination for training as well as defense.



VHP

Train+Protect's Versatile Hollow Point bullet design is more accurate than FMJs and provides better expansion than other hollow points in its class.



NEW!

NON-TYPICAL™

BUILT FOR WHITETAILS

Whitetails stand apart from all other American big game. Hunt them with ammunition that's just as exceptional. Federal Non-Typical uses an optimized soft-point bullet with a concentric jacket to provide tag-punching accuracy and consistent, lethal wound channels on any whitetail.

A SOFT POINT THAT HITS HARD

Non-Typical's soft point bullet design and concentric jacket are specially designed to offer the accuracy and terminal performance deer hunters need.

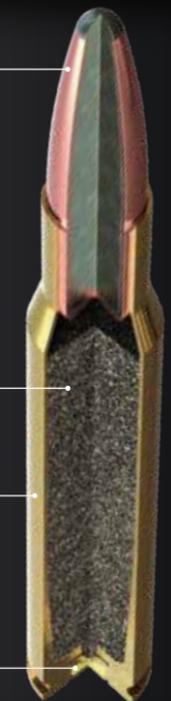


Accurate, hard-hitting bullet design

Loaded to meet the specific needs of deer hunters

Precision-drawn Federal brass

Consistent Federal primer



TRAIN + PROTECT

LOAD NO.	CALIBER	GR.	BOX CT.	LOAD NO.	CALIBER	GR.	BOX CT.
TP9VHP1	9MM LUGER	115	50	TP9VHP2	9MM LUGER	115	100
TP40VHP1	40 S&W	180	50	TP40VHP2	40 S&W	180	100
TP45VHP1	45 AUTO	230	50	TP45VHP2	45 AUTO	230	100

NON-TYPICAL RIFLE

LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.	LOAD NO.	CALIBER	GR.
243DT100	243 WIN.	100	3030DT170	30-30 WIN.	170	7RDT150	7MM REM. MAG.	150
65CDT1	6.5 CREEDMOOR	140	308DT150	308 WIN.	150	300WDT150	300 WIN. MAG.	150
270DT130	270 WIN.	130	308DT180	308 WIN.	180	300WDT180	300 WIN. MAG.	180
270DT150	270 WIN.	150	3006DT150	30-06 SPRING.	150	NEW 450BMDT1	450 BUSHMASTER	300
3030DT150	30-30 WIN.	150	3006DT180	30-06 SPRING.	180			

GET FULL BALLISTICS ON PAGES 94-107.



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NEW!

FEDERAL®

RIFLE, HANDGUN & SHOTGUN



POWER•SHOK® COPPER



THE ONLY TAG IT DOESN'T FILL IS THE PRICE TAG

Practical hunters trust Federal Power-Shok rifle ammunition to deliver reliable performance that fills freezers at an affordable price. Power-Shok Copper provides that same consistency in a non-lead bullet. Now available in 300 Win. Short Magnum and 300 Win. Magnum.

DECONSTRUCTION ZONE

Hunters can rely on the one-piece copper-alloy construction and deep hollow-point design of Power-Shok Copper.



EFFICIENT AND AFFORDABLE

Power-Shok Copper's hollow-point design expands consistently, creating large wound channels and efficiently transferring energy to the target for quick, clean kills.



POWER•SHOK COPPER RIFLE

LOAD NO.	CALIBER	GR.
24385LFA	243 WIN.	85
270130LFA	270 WIN.	130
300BLK120LFA	300 BLACKOUT	120
308150LFA	308 WIN.	150
3006150LFA	30-06 SPRING.	150
300WSM180LFA	300 WIN. SHORT MAGNUM	180
300W180LFA	300 WIN. MAGNUM	180

POWER•SHOK HANDGUN

LOAD NO.	CALIBER	GR.	BULLET
C357G	357 MAGNUM	180	JHP
C41A	41 REM. MAGNUM	210	JHP
C44B	44 REM. MAGNUM	180	JHP
C44A	44 REM. MAGNUM	240	JHP

POWER•SHOK HANDGUN

Handgun hunters can get the reliable, accurate performance they need at an affordable price with Federal Power-Shok loads.



POWER•SHOK RIFLE

These traditional lead-core rifle loads provide hunters solid accuracy and power at an affordable price. All feature reliable Federal brass, primers and powder.



POWER•SHOK RIFLE

LOAD NO.	CALIBER	GR.	BULLET
222A	222 REM.	50	Soft Point
223A	223 REM.	55	Soft Point
223L	223 REM.	64	Soft Point
22250A	22-250 REM.	55	Soft Point
243AS	243 WIN.	80	Soft Point
243B	243 WIN.	100	Soft Point
6B	6MM REM.	100	Soft Point
2506BS	25-06 REM.	117	Soft Point
65CRDB	6.5 CREEDMOOR	140	Soft Point
6555B	6.5X55MM SWEDISH	140	Soft Point*
270A	270 WIN.	130	Soft Point
270B	270 WIN.	150	Soft Point RN
270WSME	270 WIN. SHORT MAGNUM	130	Soft Point
7B	7MM MAUSER	140	Soft Point
7A	7MM MAUSER	175	Soft Point RN
708CS	7MM-08 REM.	150	Soft Point
280B	280 REM.	150	Soft Point
7RA	7MM REM. MAGNUM	150	Soft Point
7RB	7MM REM. MAGNUM	175	Soft Point
7WSME	7MM WIN. SHORT MAGNUM	150	Soft Point
30CA	30 CARBINE	110	Soft Point RN
300BLKB	300 BLK	150	Jacketed Soft Point
76239B	7.62X39MM	123	Soft Point
3030C	30-30 WIN.	125	Hollow Point
3030A	30-30 WIN.	150	Soft Point FN
3030B	30-30 WIN.	170	Soft Point RN
300A	300 SAVAGE	150	Soft Point
300B	300 SAVAGE	180	Soft Point
308A	308 WIN.	150	Soft Point
308B	308 WIN.	180	Soft Point
3006CS	30-06 SPRING.	125	Soft Point
3006A	30-06 SPRING.	150	Soft Point
3006B	30-06 SPRING.	180	Soft Point
3006HS	30-06 SPRING.	220	Soft Point
300WGS	300 WIN. MAGNUM	150	Soft Point
300WBS	300 WIN. MAGNUM	180	Soft Point
300WSMC	300 WIN. SHORT MAGNUM	180	Soft Point
338FJ	338 FEDERAL	200	Soft Point
303B	303 BRITISH	150	Soft Point
303AS	303 BRITISH	180	Soft Point
32A	32 WIN. SPECIAL	170	Soft Point FN
8A	8MM MAUSER	170	Soft Point
C357G	357 MAGNUM	180	Hollow Point
35A	35 REM.	200	Soft Point RN
375A	375 H&H MAGNUM	270	Soft Point
375B	375 H&H MAGNUM	300	Soft Point
C44A	44 REM. MAGNUM	240	Hollow Point
4570AS	45-70 GOVERNMENT	300	Hollow Point
450BMB	450 BUSHMASTER	300	Soft Point

POWER•SHOK BUCKSHOT

Bring home venison or put down predators with these affordable buckshot loads.



POWER•SHOK BUCKSHOT

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	SHOT
F131 00	12	3	1210	15 Pellets - 00 Buck
F131 4B	12	3	1210	41 Pellets - 4 Buck
F127 000	12	2¾	1325	8 Pellets - 000 Buck
F127 00	12	2¾	1325	9 Pellets - 00 Buck
F127 4B	12	2¾	1325	27 Pellets - 4 Buck
F130 00	12	2¾	1290	12 Pellets - 00 Buck
F164 1B	16	2¾	1225	12 Pellets - 1 Buck
F207 2B	20	3	1100	18 Pellets - 2 Buck
F203 3B	20	2¾	1200	20 Pellets - 3 Buck

POWER•SHOK BUCKSHOT - LOW RECOIL

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	SHOT
H132 00	12	2¾	1140	9 Pellets - 00 Buck

POWER•SHOK SABOT SLUGS

Power-Shok sabot slugs provide accuracy and power through fully rifled barrels at an affordable price.



POWER•SHOK SABOT SLUGS

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	SLUG	OUNCES
F127 SS2	12	2¾	1500	Hollow Point	1
F203 SS2	20	2¾	1450	Hollow Point	7/8

POWER•SHOK RIFLED SLUGS

Get solid, reliable performance from your smoothbore shotgun with Power-Shok rifled slugs.



POWER•SHOK RIFLED SLUGS

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	SLUG	OUNCES
F103F RS	10	3½	1280	Hollow Point	1¾
F131 RS	12	3	1600	Hollow Point	1¼
F127 RS	12	2¾	1610	Hollow Point	1
F130 RS	12	2¾	1520	Hollow Point	1¼
F164 RS	16	2¾	1600	Hollow Point	¾
F203 RS	20	2¾	1600	Hollow Point	¾
F412 RS	410	2½	1775	Hollow Point	¼

NEW!

FEDERAL®

RIFLE, HANDGUN & SHOTSHELL

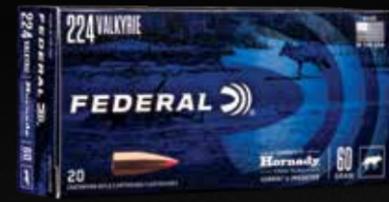


NEW!

VARMINT & PREDATOR

LET THE FUR FLY

Destroy everything from prairie dogs to coyotes with the precision of Federal Varmint & Predator. Select new loads bring the accuracy and explosive expansion of the proven V-Max® bullet, loaded with our extremely reliable brass, primer and propellant.



VARMINT & PREDATOR			
LOAD NO.	CALIBER	GR.	BULLET
AE17HGTV	17 HORNET	20	TIPPED VARMINT**
AE22HGTV	22 HORNET	35	TIPPED VARMINT**
NEW V204VM32	204 RUGER	32	V-MAX
NEW V223VM40	223 REM	40	V-MAX
AE223G	223 REM	50	JHP
AE22350VP	223 REM	50	SPEER TNT JHP**
NEW V223VM53	223 REM	53	V-MAX
NEW V224VLKVM60	224 VALKYRIE	60	V-MAX
NEW V22250VM40	22-250 REM	40	V-MAX
AE22250G	22-250 REM	50	JHP
AE2225050VP	22-250 REM	50	SPEER TNT JHP**
NEW V243VM58	243 WIN	58	V-MAX
AE24375VP	243 WIN	75	SPEER TNT JHP*
AE65GDL90VP	6.5 GRENDDEL	90	SPEER TNT JHP**
NEW V65CRDVM95	6.5 CREEDMOOR	95	V-MAX
AE6890VP	6.8 SPC	90	SPEER TNT JHP**
NEW V308VM110	308 WIN	110	V-MAX
AE308130VP	308 WIN	130	SPEER TNT JHP*

*40-count pack **50-count pack

READY TO EXPLODE

The V-Max bullet's polymer tip is carefully positioned over a hollow nose cavity to initiate violent fragmentation of the jacket and swaged lead core.



GAME•SHOK UPLAND

Game-Shok loads provide superior and volume-priced performance on your favorite small game.



GAME•SHOK UPLAND GAME – HI-BRASS LOADS					
LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT
H126	12	2¾	1330	1¼	4, 5, 6, 7.5
H163	16	2¾	1295	1⅛	4, 6, 7.5
H204	20	2¾	1220	1	4, 5, 6, 7.5
H289	28	2¾	1220	1	5, 6, 7.5
H413	410	3	1135	1⅛	4, 5, 6, 7.5
H412	410	2½	1200	½	6, 7.5

GAME•SHOK UPLAND GAME – HEAVY FIELD LOADS					
LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT
H123	12	2¾	1255	1⅛	4, 6, 7.5, 8
H125	12	2¾	1220	1¼	4, 5, 6, 7.5
H202	20	2¾	1165	1	6, 7.5, 8

GAME•SHOK UPLAND GAME – GAME LOADS					
LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT
H121	12	2¾	1290	1	6, 7.5, 8
H160	16	2¾	1165	1	6, 7.5, 8
H200	20	2¾	1210	7⁄8	6, 7.5, 8

SPEED•SHOK®

FASTER, CLEANER, MEANER

Speed kills ducks and geese. Now it kills even cleaner with redesigned Federal Speed-Shok. Its Catalyst™ primer and faster burning powders dramatically reduce residue, while its optimized velocities knock birds out of the sky. Now available in .410, 28-gauge and high-velocity 12-gauge offerings.



SPEED•SHOK WATERFOWL					
LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT
WF107	10	3½	1450	1½	T, BBB, BB, 2
WF133	12	3½	1550	1¾	T, BBB, BB, 1, 2, 3, 4
WF134	12	3½	1500	1½	T, BBB, BB, 1, 2
WF143	12	3	1550	1¾	T, BBB, BB, 1, 2, 3, 4, 6
WF142	12	3	1450	1¼	T, BBB, BB, 1, 2, 3, 4
WF145	12	2¾	1500	1¾	BB, 2, 3, 4, 6
WF168	16	2¾	1350	1⅞	BB, 2, 4
WF209	20	3	1550	7⁄8	1, 2, 3, 4
WF208	20	2¾	1425	¾	4, 6, 7
WF283	28	2¾	1350	¾	6
WF413	.410	3	1400	¾	6

STRUT•SHOK

Strut-Shok is designed for the hunter who needs a hard-hitting turkey load that's lighter on the wallet.



STRUT•SHOK					
LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT
FT139F	12	3½	1300	2	4, 5, 6
FT158F	12	3	1210	1⅞	4, 5, 6
FT258F	20	3	1185	1¼	5

GAME•SHOK RIMFIRE

Put small game in the bag without taking much out of your wallet. Game-Shok rimfire loads are consistent, accurate and affordable.



GAME•SHOK RIMFIRE				
LOAD NO.	CALIBER	GR.	BULLET	
716	22 LONG RIFLE	25	No. 12 Lead Bird Shot	
724	22 LONG RIFLE	31	Copper Plated HP	
712	22 LONG RIFLE	38	Copper Plated HP	
710	22 LONG RIFLE	40	Copper Plated Solid	
757	22 WIN. MAGNUM	50	JHP	

NEW! UPLAND STEEL

Doves are done. Upland Steel serves up the patterns and power hunters need for hard-to-hit birds at a price that keeps them shooting all day. The loads are consistent and reliable, with high velocities that make the most of the steel payload. They're the perfect choice for doves and other light upland game, especially in areas that require the use of non-lead shot.



FIELD & RANGE STEEL GAME & TARGET					
LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT
NEW USH12	12	2¾	1400	1⅛	6, 7.5
NEW USH20	20	2¾	1500	¾	6, 7.5

NEW!

FEDERAL®

SHOTSHELL, HANDGUN & RIMFIRE

NEW!

TOP GUN® SPORTING

BREAKS CLAYS, NOT YOUR BUDGET

For decades, Top Gun loads have been pulverizing even the most challenging clay targets. Now shooters can get that same consistent, trusted performance with Top Gun Sporting, loads specifically designed for sporting clays. They push their payloads fast to shorten leads, yet reduce felt recoil to allow for quicker follow-up shots. Also available in .410 and 28 gauge.



TOP GUN SPORTING

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT
NEW TGSF128	12	2 3/4	1330	1	7.5, 8
NEW TGS128	12	2 3/4	1250	1	7.5, 8
NEW TGS224	20	2 3/4	1250	7/8	7.5, 8
NEW TGS2821	28	2 3/4	1330	3/4	7.5, 8, 9
NEW TGS41214	.410	2 1/2	1330	1/2	7.5, 8, 9

NEW! SHORTY SHOTSHELL

Great things really do come in small packages. New Shorty shotshells offer similar patterns, energy and accuracy as full-size counterparts, yet their 1 3/4-inch length greatly increases the capacity of standard tube magazine-fed shotguns.



SHORTY SHOTSHELLS

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT
SH129 4B	12	1 3/4	1200	15 Pellet	4 buck
SH129 RS	12	1 3/4	1200	1 oz	Rifled slug
SH129 8	12	1 3/4	1145	8 15/16 oz	8



NEW! BYOB™

There's a party at the range, so BYOB. Federal BYOB rimfire buckets and bottles are bulk packs that stack, store and carry easily. They're loaded with high-quality rimfire rounds perfect for a fun day at the range or in the field.

BYOB BULK PACKS

LOAD NO.	CALIBER	GR.	BULLET	VELOCITY	COUNT
770BTL250	17 HMR	17	Speer® TNT®	2530	250
750BTL450	22 LR	36	CPHP	1260	450
750BKT825	22 LR	36	CPHP	1260	825
750BKT1375	22 LR	36	CPHP	1260	1375
757BTL250	22 WMR	50	JHP	1530	250

CHAMPION™ RIMFIRE

Do more plinking and target shooting with Champion rimfire loads. They feature a variety of accurate bullet designs and provide consistent, reliable performance.



CHAMPION RIMFIRE

LOAD NO.	CALIBER	GR.	BULLET
745	22 LONG RIFLE	36	Copper Plated HP
AM22	22 LONG RIFLE	40	Solid
510	22 LONG RIFLE	40	Solid
737	22 WIN. MAGNUM	40	FMJ

TOP GUN® TARGET



Federal Top Gun Target loads' hard, high-quality shot result in consistent patterns that reliably break clay after clay.

TOP GUN TARGET

LOAD NO.	GAUGE	SHELL LENGTH	VELOCITY	PAYLOAD	SHOT
TG121	12	2 3/4	1180	1	7.5, 8
TG122	12	2 3/4	1250	1	7.5, 8
TG12	12	2 3/4	1200	1 1/8	7.5, 8
TG12EL	12	2 3/4	1200	7/8	8
TGL12	12	2 3/4	1145	1 1/8	7.5, 8, 9
TGL12US	12	2 3/4	1145	1 1/8	8
TGL12P	12	2 3/4	1145	1 1/8	8
TG20	20	2 3/4	1210	7/8	7.5, 8, 9

TOP GUN TARGET - SUBSONIC

TGM123	12	2 3/4	900	1 1/8	7.5
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TOP GUN TARGET - STEEL

TG147	12	2 3/4	1145	1 1/8	7
TG251	20	2 3/4	1210	7/8	7

CHAMPION HANDGUN

Built for consistent accuracy and priced right for high-volume shooting, Federal Champion handgun loads are perfect for training.



CHAMPION HANDGUN

LOAD NO.	CALIBER	GR.	BULLET
C32HRA	32 H&R MAGNUM	95	LSW
C44SA	44 SPECIAL	200	SWHP
C45LCA	45 COLT	225	SWHP

PERSONAL DEFENSE® REVOLVER

Personal Defense Revolver loads provide the accuracy and reliability you can trust to defend yourself.



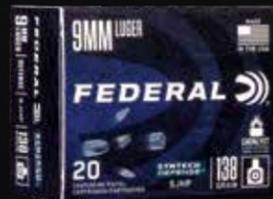
PERSONAL DEFENSE REVOLVER

LOAD NO.	CALIBER	GR.	BULLET
C32HRB	32 H&R MAGNUM	85	JHP
C357B	357 MAGNUM	125	JHP
C357E	357 MAGNUM	158	JHP

SYNTECH® DEFENSE™

THE ULTIMATE FORCE MULTIPLIER HAS ARRIVED

Syntech changed the range forever. Now the technology is transforming protection as well. All-new Syntech Defense provides dynamic terminal performance with a hollow-point bullet that separates into three segments and a deep-penetrating core on impact—all with the same clean, soft-shooting properties that fueled original Syntech's range revolution.

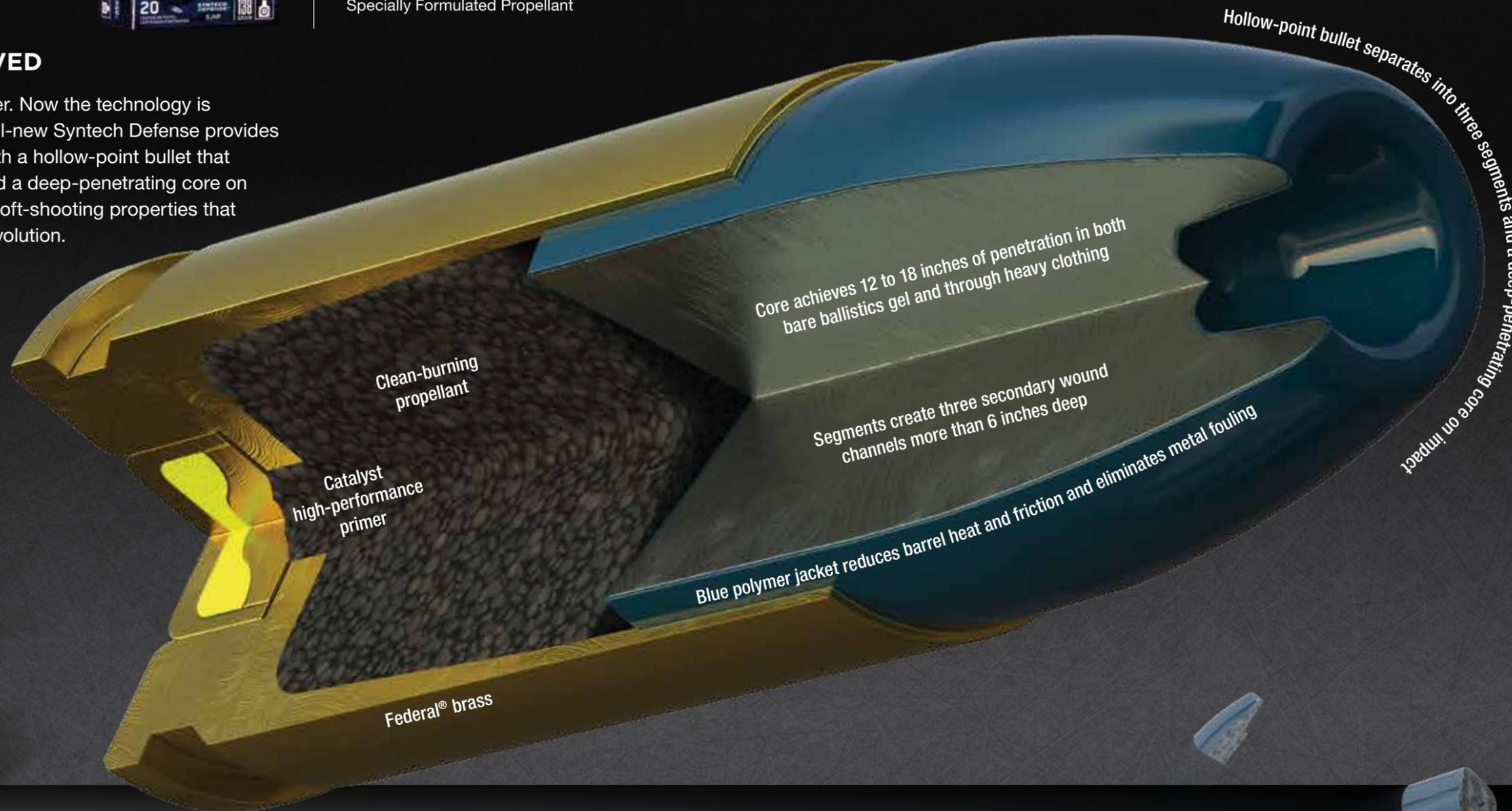


TECHNOLOGIES

- Segmenting Hollow Point Bullet
- Catalyst™ Primer
- Reloadable Brass Case
- Specially Formulated Propellant

NEW!

SELF-DEFENSE



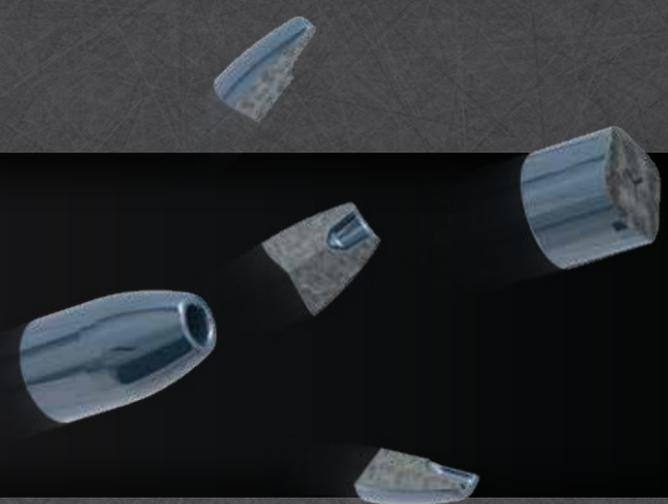
CORE PERFORMANCE

After separating from the bullet's segments on impact, the Syntech Defense core penetrates at least 12 to 18 inches bare ballistics gel and heavy clothing—a critical benchmark in self-defense situations and the best terminal performance of any round in its class. Bare gelatin shot with 138-grain 9mm Luger (S9SJT1) at 10 feet.



THREE STRIKES

Syntech Defense backs up the performance of its deep-penetrating core with three segments that separate on contact with the target, creating secondary wound channels, each more than 6 inches deep.



SYNTECH® DEFENSE™				SYNTECH® DEFENSE™			
LOAD NO.	CALIBER	GR.	BULLET	LOAD NO.	CALIBER	GR.	BULLET
S9SJT1	9MM LUGER	138	SJT	S45SJT1	45 AUTO	205	SJT
S40SJT1	40 S&W	175	SJT				

SYNTECH®

A CLEANER WAY TO SHOOT, COMPETE & TRAIN

The range is a whole new place. Cleaner. Faster. Safer. Syntech technology has changed it all with its exclusive Total Synthetic Jacket and Catalyst™ lead-free primer. The polymer jacket eliminates lead and copper fouling, reduces damaging heat and friction in the barrel, minimizes splashback on hard targets and even reduces felt recoil for fast, more accurate shooting. Now we offer Syntech in four distinct lines, each built around a specific type of shooting, including all-new Syntech PCC and Syntech Training Match.



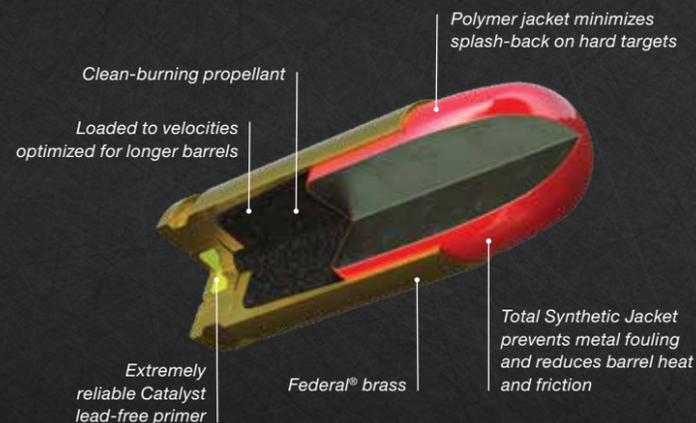
NEW! SYNTECH PCC™

Introducing a 9mm Luger load specifically designed for use in carbines. New Syntech PCC is built to meet the exhaustive demands of fast-pace Pistol Caliber Carbine competitions, with flawless function in carbine platforms. Velocity and accuracy are optimized for long gun barrel lengths, with a bullet profile that provides excellent accuracy and reliable feeding in a variety of carbine platforms.



CATALYST PRIMER TECHNOLOGY

Catalyst lead-free primer technology provides the most reliable, consistent ignition possible in handgunrange ammunition.



NEW! SYNTECH TRAINING MATCH™

If practice isn't realistic, it's not really practice. Make range time matter with all-new Syntech Training Match, loads that offer the same velocity, trajectory and point of impact as equivalent Federal Premium® Personal Defense® HST® ammunition for the most meaningful defensive practice.



BALLISTIC MATCH TO HST



SYNTECH ACTION PISTOL™

Shooters who compete at the highest levels need ammunition built for the demands of their discipline. Syntech Action Pistol is specifically designed for the action shooting sports and loaded to power factor requirements with heavy, flatter-nosed bullets for more reliable knock-downs on steel targets in competition.



OFFICIAL AMMUNITION OF THE USPSA

Syntech Action Pistol is the official ammunition of the United States Practical Shooting Association (USPSA). The alliance supports the organization's tireless stewardship of competitive practical shooting, along with the matches, new shooter recruitment efforts and other activities of more than 620 affiliated USPSA and Steel Challenge clubs and 32,000 USPSA members nationwide.



LESS MUZZLE RISE FOR FASTER FOLLOW-UPS

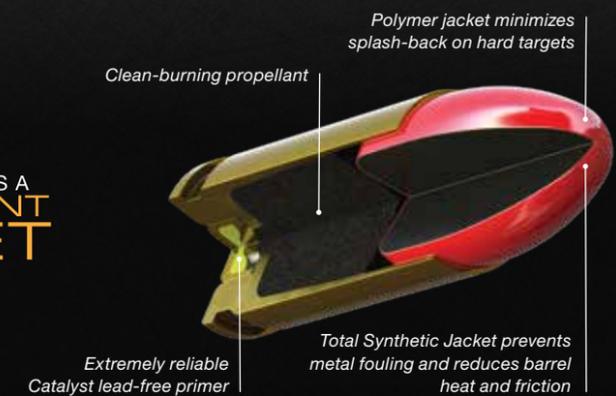
Syntech Action Pistol's unique blend of propellants, bullet weights and the Total Synthetic Jacket result in as much as 14 percent less muzzle rise than comparable target loads. This allows competitive shooters to get back on target more quickly, for faster follow-up shots and stage times. Still frame from high-speed video showing 150-grain 9mm Luger (AE9SJAP1) fired through a Tangfolio Stock II.

SYNTECH RANGE™

Original Syntech remains an excellent all-around option for anyone looking to spend the day at the range. It shoots cooler, softer and drastically reduces downtime for gun cleaning.



NOW AVAILABLE AS A COMPONENT BULLET
See page 83



SYNTECH RANGE

PART NO.	CALIBER	GR.	BULLET
AE9SJ1	9MM LUGER	115	0.536
AE9SJ2	9MM LUGER	124	0.625
AE40SJ1	40 S&W	165	0.482
AE45SJ1	45 AUTO	230	0.610

SYNTECH TRAINING MATCH

PART NO.	CALIBER	GR.	BULLET
AE9SJ3	9MM LUGER	147	TSJ
AE9SJ4	9MM LUGER	124	TSJ
AE40SJ2	40 S&W	180	TSJ
AE45SJ2	45 AUTO	230	TSJ

SYNTECH ACTION PISTOL

PART NO.	CALIBER	GR.	BULLET
AE9SJAP1	9MM LUGER	150	TSJ
AE40SJAP1	40 S&W	205	TSJ
AE45SJAP1	45 AUTO	220	TSJ

SYNTECH PCC

PART NO.	CALIBER	GR.	BULLET
AE9SJPC1	9MM LUGER	130	TSJ



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AVAILABLE LOADS



99

RANGE & COMPETITION HANDGUN



AMERICAN EAGLE®



RIFLE

American Eagle Rifle is loaded for pounding paper targets with ballistic performance that closely matches comparable Premium® loads for the ultimate real-world practice.

AMERICAN EAGLE RIFLE

LOAD NO.	CALIBER	GR.	BULLET
AE5728A	5.7X28	40	FMJ
AE223	223 REM.	55	FMJ Boat-Tail
AE223N	223 REM.	62	FMJ Boat-Tail
AE223T75	223 REM.	75	TMJ
AE224VLK1	224 VALKYRIE	75	TMJ
AE65GDL1	6.5 GRENDL	120	OTM
AE65CRD2	6.5 CREEDMOOR	120	OTM
AE68A	6.8 SPC	115	FMJ
AE30CB	30 CARBINE	110	FMJ
AE300BLK1	300 BLACKOUT	150	FMJ
A76239A	7.62X39MM	124	FMJ
AE308D	308 WIN.	150	FMJ Boat-Tail
A76251M1A	308 WIN.	168	OTM
AE3006N	30-06 SPRING.	150	FMJ Boat-Tail
AE3006M1	30-06 SPRING.	150	FMJ
AE338L	338 LAPUA	250	JSP

MSR

Get reliable, accurate performance from your modern sporting rifle with American Eagle MSR loads. They're offered in a variety of configurations and proudly made in the USA.



AMERICAN EAGLE XM RIFLE

LOAD NO.	CALIBER	GR.	BULLET
XM193	5.56X45MM	55	FMJ
XM855	5.56X45MM	62	FMJ
XM80	7.62X51MM	149	FMJ

INDOOR RANGE TRAINING

American Eagle Indoor Range Training (IRT) ammunition has a reduced-lead bullet fully encapsulated in copper for safer, economical training. The loads are the ballistic equivalent of personal defense rounds.



AMERICAN EAGLE IRT

LOAD NO.	CALIBER	GR.	BULLET
AE9N1	9MM LUGER	124	TMJ
AE9N2	9MM LUGER	147	TMJ
AE40N1	40 S&W	180	TMJ
AE45N1	45 AUTO	230	TMJ

HANDGUN

Hit your target and train harder. American Eagle delivers realistic, meaningful practice thanks to accurate FMJ bullets and consistent propellants, brass and primers.



AMERICAN EAGLE HANDGUN

LOAD NO.	CALIBER	GR.	BULLET
AE5728A	5.7X28	40	FMJ
AE25AP	25 AUTO	50	FMJ
AE32AP	32 AUTO	71	FMJ
AE357A	357 MAGNUM	158	JSP
AE327A	327 FEDERAL MAGNUM	85	JSP
AE327	327 FEDERAL MAGNUM	100	JSP
AE380AP	380 AUTO	95	FMJ
AE9MK	9MM MAKAROV	95	FMJ
AE9DP	9MM LUGER	115	FMJ
AE9AP	9MM LUGER	124	FMJ
AE9FP	9MM LUGER	147	FMJ FP
AE38S3	38 SUPER +P	115	JHP
AE38S1	38 SUPER +P	130	FMJ
AE357S2	357 SIG	125	FMJ
AE38K	38 SPECIAL	130	FMJ
AE38B	38 SPECIAL	158	LRN
AE40R2	40 S&W	155	FMJ
AE40R3	40 S&W	165	FMJ
AE40R1	40 S&W	180	FMJ
AE10A	10MM AUTO	180	FMJ
AE44A	44 REM. MAGNUM	240	JHP
AE44B	44 REM. MAGNUM	240	JSP
AE45LC	45 COLT	225	JSP
AE45A	45 AUTO	230	FMJ

SUPPRESSOR

Subsonic American Eagle Suppressor rounds perform to their ballistic peak in suppressed firearms, thanks to carefully selected propellants, bullet weights and primers. Clean-burning powders minimize fouling while reliably functioning in semi-automatic firearms.



AMERICAN EAGLE SUPPRESSOR

LOAD NO.	CALIBER	GR.	BULLET
AE22SUP1	22 LONG RIFLE	45	CPRN
AE9SUP1	9MM LUGER	124	FMJ
AE45SUP1	45 AUTO	230	FMJ
AE300BLKSUP2	300 BLACKOUT	220	OTM

RIMFIRE

American Eagle 22 Long Rifle provides accurate, affordable performance for small game and target shooting. The copper-jacketed hollow-point bullet promotes consistent expansion.



AMERICAN EAGLE RIMFIRE

LOAD NO.	CALIBER	GR.	BULLET
AE22	22 LONG RIFLE	38	CPHP
AE5022	22 LONG RIFLE	40	Solid

PARTNER SPOTLIGHT: Lake City Army Ammunition

For more than a decade, Federal® has been working hand-in-hand with the Lake City Army Ammunition plant, fueling the shooting sports with the industry's most consistent, reliable and affordable small arms rounds.

FEDERAL PREMIUM® RIFLE

ATT.	USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	GOLD MEDAL PRIMER	BALLISTIC COEFFICIENT		VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)					ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)					WIND DRIFT IN INCHES (10 MPH CROSSWIND)					HEIGHT OF BULLET TRAJECTORY IN INCHES ABOVE OR BELOW LINE OF SIGHT IF ZEROED AT 100 YARDS, SIGHTS 1.5 INCHES ABOVE BORE LINE.					TEST BARREL LENGTH INCHES							
				GRAINS	GRAMS			G1	G7	MUZZLE	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	MUZZLE	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	50 YDS.	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	50 YDS.	100 YDS.		200 YDS.	300 YDS.	400 YDS.	500 YDS.			
FEDERAL PREMIUM BIG GAME																																					
NEW	0	1 2	P223TC1	223 Rem.	55	3.56				3240	2915	2613	2330	2066	1819	1282	1038	834	663	521	404	0.9	3.7	8.8	16.6	27.5	-0.3	⊕	-2.6	-10.3	0.4	1.3	⊕	-6.4	-19.3	-40.2	24
NEW	0	2	P223S	223 Rem.	55	3.56				3200	2738	2320	1940	1604	1323	1250	915	657	460	314	214	1.3	5.8	14.1	27.7	47.5	-0.3	⊕	-3.2	-12.9	0.5	1.6	⊕	-8.1	-25.8	-57.5	24
	0	2	P223Q	223 Rem.	60	3.89				3160	2737	2350	1998	1679	1403	1330	998	736	532	375	262	1.2	5.3	13.1	25.2	42.9	-0.2	⊕	-3.2	-12.7	0.5	1.6	⊕	-8.0	-24.8	-54.4	24
	0	1, 2	P223TT3	223 Rem.	62	4.02				3050	2680	2339	2024	1736	1480	1281	989	753	564	415	302	1.2	4.9	11.9	22.8	38.4	-0.2	⊕	-3.3	-13.1	0.6	1.7	⊕	-8.1	-24.8	-53.3	24
	0	2	P22250G	22-250 Rem.	60	3.89				3500	3043	2630	2253	1908	1601	1632	1234	922	676	485	341	1.1	4.7	11.3	21.6	36.9	-0.3	⊕	-2.3	-9.6	0.2	1.1	⊕	-6.2	-19.3	-42.4	24
NEW	0	2	P224VLKBTSX1	224 Valkyrie	78	5.05				2850	2611	2385	2170	1966	1774	1407	1181	985	815	669	545	0.9	3.4	8.2	15.2	24.9	-0.2	⊕	-3.6	-13.4	0.7	1.8	⊕	-8	-23.3	-47.7	24
	0	2	P243A1	243 Win.	90	5.83				3000	2749	2511	2285	2072	1869	1798	1510	1260	1044	858	698	0.8	3.3	7.7	14.4	23.5	-0.2	⊕	-3.1	-11.7	0.6	1.6	⊕	-7.1	-20.9	-42.6	24
	0	2	P243TC1	243 Win.	85	5.51				3200	2947	2708	2481	2265	2061	1933	1639	1384	1162	969	801	0.7	2.9	6.8	12.5	20.5	-0.3	⊕	-2.5	-9.8	0.3	1.3	⊕	-6.0	-17.6	-36.2	24
NEW	0	2	P243K	243 Win.	85	5.51				3200	2904	2628	2367	2122	1891	1933	1592	1303	1057	850	675	0.8	3.5	8.1	15.2	24.9	-0.3	⊕	-2.7	-10.3	0.4	1.3	⊕	-6.3	-19	-39.2	24
NEW	0	2	P243BCH1	243 Win.	95	6.16		0.434	0.223	3050	2829	2619	2418	2226	2043	1962	1688	1446	1233	1045	880	0.6	2.8	6.4	11.9	19.3	-0.2	⊕	-2.9	-10.8	0.5	1.4	⊕	-6.5	-18.9	-38.4	24
	0	2	P243J	243 Win.	95	6.16				3025	2774	2536	2310	2096	1893	1930	1623	1356	1126	927	756	0.8	3.2	7.6	14.2	23.0	-0.2	⊕	-3.0	-11.5	0.5	1.5	⊕	-6.9	-20.4	-41.6	24
	0	2	P243C	243 Win.	100	6.48				2960	2741	2533	2334	2145	1964	1945	1669	1425	1210	1021	856	0.7	2.9	6.7	12.6	20.4	-0.2	⊕	-3.1	-11.7	0.6	1.6	⊕	-7.0	-20.4	-41.3	24
	0	2	P243E	243 Win.	100	6.48				2850	2612	2386	2171	1968	1776	1803	1515	1264	1047	860	701	0.9	3.4	8.2	15.2	24.8	-0.2	⊕	-3.6	-13.4	0.7	1.8	⊕	-8.0	-23.3	-47.6	24
	0	2	P257B	257 Roberts +P	120	7.78				2800	2569	2349	2140	1941	1755	2089	1758	1470	1220	1004	821	0.9	3.4	8.2	15.2	25.0	-0.1	⊕	-3.8	-13.9	0.8	1.9	⊕	-8.3	-24.0	-49.2	24
NEW	0	2	P2506H	25-06 Rem.	100	6.48				3210	2916	2641	2382	2138	1908	2288	1888	1549	1260	1015	808	0.8	3.4	7.9	15	24.5	-0.3	⊕	-2.6	-10.2	0.4	1.3	⊕	-6.3	-18.8	-38.7	24
	0	2	P2506A1	25-06 Rem.	110	7.13				3100	2868	2648	2438	2238	2048	2347	2009	1713	1452	1224	1024	0.6	2.8	6.5	12.1	19.8	-0.3	⊕	-2.8	-10.4	0.4	1.4	⊕	-6.3	-18.5	-37.7	24
	0	2	P2506TC1	25-06 Rem.	100	6.48				3210	2967	2737	2519	2311	2113	2288	1955	1664	1409	1185	991	0.7	2.7	6.4	11.8	19.3	-0.3	⊕	-2.5	-9.6	0.3	1.2	⊕	-5.9	-17.2	-35.2	24
	0	2	P2506D	25-06 Rem.	100	6.48				3220	2968	2729	2503	2288	2084	2302	1955	1654	1391	1162	964	0.7	2.8	6.6	12.3	20.1	-0.3	⊕	-2.5	-9.6	0.3	1.2	⊕	-5.9	-17.3	-35.5	24
	0	2	P2506E	25-06 Rem.	115	7.45				3030	2785	2553	2333	2124	1925	2344	1981	1665	1390	1152	946	0.7	3.1	7.3	13.7	22.2	-0.2	⊕	-3.0	-11.3	0.5	1.5	⊕	-6.8	-20.1	-40.9	24
	0	2	P2506C	25-06 Rem.	117	7.58				3030	2797	2577	2366	2166	1975	2385	2033	1725	1454	1219	1014	0.7	3.0	6.9	12.8	20.9	-0.2	⊕	-3.0	-11.1	0.5	1.5	⊕	-6.7	-19.7	-40.0	24
	0	2	P260B	260 Rem.	120	7.78				2950	2725	2512	2308	2113	1928	2319	1979	1681	1419	1190	990	0.7	3.0	7.0	13.1	21.2	-0.2	⊕	-3.2	-11.9	0.6	1.6	⊕	-7.1	-20.8	-42.1	24
	0	2	P260A	260 Rem.	140	9.07				2700	2487	2284	2090	1905	1733	2266	1922	1621	1358	1128	934	0.8	3.4	8.1	14.8	24.4	-0.1	⊕	-4.1	-15.0	0.9	2.1	⊕	-8.8	-25.3	-51.9	24
	0	2	P65CRDTC1	6.5 Creedmoor	120	7.78				2875	2689	2510	2338	2174	2015	2202	1926	1679	1457	1259	1082	0.7	2.6	6.0	11.1	17.9	-0.2	⊕	-3.3	-12.1	0.6	1.7	⊕	-7.1	-20.8	-41.6	24
NEW	0	2	P65CRDELTLR1	6.5 Creedmoor	130	8.42		0.545	0.28	2825	2657	2495	2338	2188	2043	2303	2037	1797	1578	1382	1204	0.6	2.5	5.5	10.3	16.6	-0.2	⊕	-3.4	-12.4	0.7	1.7	⊕	-7.2	-21	-41.9	24
NEW	0	2	P65CRDBTSX1	6.5 Creedmoor	130	8.42				2825	2576	2341	2118	1906	1711	2303	1916	1581	1294	1049	845	0.9	3.7	8.8	16.2	26.9	-0.2	⊕	-3.7	-13.9	0.8	1.9	⊕	-8.3	-24.2	-50	24
NEW	0	2	P65CRDBCH1	6.5 Creedmoor	135	8.75		0.584	0.303	2775	2620	2469	2324	2184	2049	2308	2057	1828	1619	1430	1258	0.6	2.3	5.3	9.8	15.7	-0.1	⊕	-3.6	-12.8	0.7	1.8	⊕	-7.5	-21.5	-42.7	24
	0	2	P65CRDA1	6.5 Creedmoor	140	9.07		0.509	0.244	2675	2501	2334	2173	2018	1870	2224	1944	1693	1467	1266	1086	0.6	2.7	6.5	11.9	19.2	-0.1	⊕	-4.1	-14.6	-32.4	-58.5	⊕	-8.5	-24.3	-48.4	24
NEW	0	2	P270L	270 Win.	130	8.42				3060	2804	2562	2333	2115	1909	2703	2269	1895	1571	1292	1052	0.7	3.2	7.5	14.1	23	-0.2	⊕	-2.9	-11.2	0.5	1.5	⊕	-6.7	-20	-40.8	24
NEW	0	2	P270BCH1	270 Win.	140	9.07		0.528	0.271	2950	2772	2600	2435	2276	2123	2705	2388	2102	1843	1610	1401	0.6	2.4	5.4	9.9	16.2	-0.2	⊕	-3.1	-11.2	0.5	1.5	⊕	-6.6	-19.1	-38.5	24
	0	2	P270A1	270 Win.	140	9.07				2950	2760	2579	2404	2236	2075	2705	2368	2067	1796	1554	1338	0.6	2.5	5.8	10.7	17.4	-0.2	⊕	-3.1	-11.3	0.6	1.5	⊕	-6.7	-19.5	-39.3	24
	0	2	P270ETLR1	270 Win.	136	8.81		0.508	0.255	3000	2813	2633	2460	2294	2135	2718	2389	2093	1828	1589	1376	0.6	2.4	5.5	10.1	16.5	-0.2	⊕	-2.9	-10.8	0.5	1.5	⊕	-6.4	-18.6	-37.5	24
	0	2	P270D	270 Win.	130	8.42				3060	2839	2630	2429	2238	2055	2703	2327	1996	1703	1445	1219	0.6	2.7	6.3	11.7	19.1	-0.3	⊕	-2.8	-10.7	0.5	1.4	⊕	-6.4	-18.8	-38.1	24
	0	2	P270F	270 Win.	130	8.42				3060	2837	2626	2424	2231	2046	2703	2324	1990	1695	1436	1209	0.6	2.8	6.4	11.9	19.4	-0.3	⊕	-2.9	-10.7	0.5	1.4	⊕	-6.4	-18.8	-38.2	24
	0	2	P270P	270 Win.	130	8.42				3060	2829	2610																									

FEDERAL PREMIUM® RIFLE

ATT.	USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	GOLD MEDAL PRIMER	BALLISTIC COEFFICIENT		MUZZLE VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)	500 YDS.	ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)					WIND DRIFT IN INCHES TO MPH CROSSWIND					HEIGHT OF BULLET TRAJECTORY IN INCHES ABOVE OR BELOW LINE OF SIGHT IF ZEROED AT 100 YARDS, SIGHTS 1.5 INCHES ABOVE BORE LINE. AVERAGE RANGE LONG RANGE					TEST BARREL LENGTH INCHES											
				GRAINS	GRAMS			G1	G7			100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	50 YDS.	100 YDS.	200 YDS.	300 YDS.	400 YDS.		500 YDS.										
NEW	◇	2	P7RCH1	7mm Rem. Magnum	168	10.89	Berger Hybrid Hunter	X	0.566	0.27	2870	2706	2549	2396	2249	2107	3072	2732	2423	2141	1886	1656	0.6	2.3	5.2	9.6	15.5	-0.2	⊕	-3.3	-11.8	0.6	1.6	⊕	-6.9	-20	-40	24
	◇	3	P7RT1	7mm Rem. Magnum	175	11.34	Trophy Bonded Bear Claw	X			2750	2530	2320	2121	1931	1753	2938	2487	2092	1747	1448	1193	0.8	3.4	8.1	14.8	24.4	-0.1	⊕	-3.9	-14.4	0.9	2.0	⊕	-8.5	-24.6	-50.2	24
	◇	3	P7WSMA1	7mm Win. Short Magnum	160	10.37	Nosler AccuBond	X			3000	2821	2648	2482	2322	2169	3197	2826	2491	2189	1916	1671	0.5	2.3	5.3	9.6	15.6	-0.2	⊕	-2.9	-10.7	0.5	1.5	⊕	-6.4	-18.4	-37.0	24
	◇	2	P7WSMTT2	7mm Win. Short Magnum	140	9.07	Trophy Bonded Tip	X			3200	2969	2750	2542	2342	2152	3183	2740	2351	2008	1705	1440	0.6	2.6	6.1	11.2	18.3	-0.3	⊕	-2.5	-9.5	0.3	1.2	⊕	-5.8	-17.0	-34.7	24
	◇	2	P7WSMB	7mm Win. Short Magnum	140	9.07	Nosler Ballistic Tip	X			3310	3098	2896	2704	2519	2342	3406	2984	2608	2272	1973	1705	0.6	2.2	5.2	9.4	15.2	-0.3	⊕	-2.1	-8.4	0.2	1.1	⊕	-5.2	-15.2	-30.6	24
	◇	3	P7WSMTC3	7mm Win. Short Magnum	150	9.72	Trophy Copper	X			3140	2943	2754	2573	2399	2232	3284	2884	2526	2205	1917	1660	0.5	2.3	5.3	9.7	15.7	-0.3	⊕	-2.5	-9.7	0.3	1.3	⊕	-5.9	-16.9	-34.1	24
	◇	3	P7WSMTT1	7mm Win. Short Magnum	160	10.37	Trophy Bonded Tip	X			3000	2817	2641	2472	2309	2153	3197	2819	2478	2171	1894	1646	0.6	2.4	5.4	9.9	16.0	-0.2	⊕	-2.9	-10.8	0.5	1.5	⊕	-6.4	-18.5	-37.2	24
	◇	3	P7WBTT1	7mm Weatherby Magnum	160	10.37	Trophy Bonded Tip	X			3100	2913	2733	2561	2394	2235	3414	3014	2653	2329	2036	1774	0.5	2.2	5.2	9.4	15.2	-0.3	⊕	-2.6	-9.9	0.4	1.3	⊕	-6.0	-17.2	-34.6	24
	◇	2	P3030TC1	30-30 Win.	150	9.72	Trophy Copper	X			2300	1943	1625	1354	1150	1021	1762	1258	880	611	441	347	2.0	8.9	21.5	41.0	67.0	0.2	⊕	-7.9	-29.0	2.2	3.9	⊕	-17.2	-53.8	-117.0	24
NEW	◇	2	P3030G	30-30 Win.	150	9.72	Barnes Triple-Shock X Bullet	X			2220	1803	1447	1178	1017	919	1641	1083	697	462	344	281	2.6	11.5	28.4	53.2	84.2	0.3	⊕	-9.4	-35.8	2.7	4.7	⊕	-21.7	-68.6	-147.8	24
	◇	2	P3030D	30-30 Win.	170	11.02	Nosler Partition	X			2200	1894	1619	1380	1191	1060	1827	1354	990	719	535	424	1.8	8.1	19.4	36.7	59.9	0.3	⊕	-8.4	-30.0	2.4	4.2	⊕	-17.4	-53.5	-114.4	24
	◇	2	P308F	308 Win.	150	9.72	Nosler Ballistic Tip	X			2820	2611	2410	2219	2037	1863	2648	2270	1935	1640	1382	1156	0.8	3.0	7.2	13.3	21.5	-0.2	⊕	-3.6	-13.2	0.7	1.8	⊕	-7.8	-22.7	-45.8	24
	◇	2	P308S	308 Win.	150	9.72	Nosler Partition	X			2840	2604	2380	2168	1966	1776	2686	2259	1887	1565	1287	1050	0.9	3.4	8.2	15.1	24.7	-0.2	⊕	-3.6	-13.4	0.7	1.8	⊕	-8.0	-23.4	-47.8	24
NEW	◇	2	P308V	308 Win.	150	9.72	Barnes Triple-Shock X Bullet	X			2820	2574	2341	2120	1911	1717	2648	2207	1825	1497	1217	982	0.9	3.6	8.7	16	26.6	-0.2	⊕	-3.7	-13.9	0.8	1.9	⊕	-8.3	-24.2	-49.9	24
	◇	2	P308TC3	308 Win.	150	9.72	Trophy Copper	X			2820	2625	2439	2260	2089	1925	2648	2296	1981	1701	1453	1234	0.7	2.8	6.6	12.2	19.7	-0.2	⊕	-3.5	-12.9	0.7	1.8	⊕	-7.6	-22.2	-44.4	24
	◇	2	P308A1	308 Win.	165	10.69	Nosler AccuBond	X			2700	2513	2333	2161	1997	1838	2671	2313	1994	1711	1460	1238	0.7	2.9	7.0	12.9	20.6	-0.1	⊕	-4.0	-14.5	0.9	2.0	⊕	-8.5	-24.4	-48.7	24
	◇	2	P308TC2	308 Win.	165	10.69	Trophy Copper	X			2700	2510	2329	2155	1988	1829	2671	2309	1986	1701	1448	1225	0.7	2.9	7.1	13.0	20.9	-0.1	⊕	-4.0	-14.5	0.9	2.0	⊕	-8.5	-24.5	-49.0	24
	◇	2	P308C	308 Win.	165	10.69	Sierra GameKing BTSP	X			2700	2481	2272	2073	1884	1708	2671	2254	1891	1575	1301	1069	0.8	3.5	8.3	15.3	25.4	-0.1	⊕	-4.2	-15.1	0.9	2.1	⊕	-8.9	-25.6	-52.7	24
	◇	2	P308TT2	308 Win.	165	10.69	Trophy Bonded Tip	X			2700	2503	2314	2133	1960	1797	2671	2294	1961	1667	1408	1182	0.7	3.1	7.4	13.6	22.1	-0.1	⊕	-4.1	-14.7	0.9	2.0	⊕	-8.6	-24.7	-49.9	24
NEW	◇	3	P308H	308 Win.	165	10.69	Barnes Triple-Shock X Bullet	X			2650	2490	2220	2021	1833	1659	2573	2163	1806	1497	1231	1008	0.8	3.7	8.7	16	28.7	-0.1	⊕	-4.4	-15.9	1	2.2	⊕	-9.3	-26.9	-55.4	24
NEW	◇	2	P308BCH1	308 Win.	168	10.89	Berger Hybrid Hunter	X	0.489	0.251	2700	2518	2343	2176	2015	1860	2719	2365	2048	1766	1514	1291	0.7	2.8	6.7	12.3	19.9	-0.1	⊕	-4	-14.4	0.9	2	⊕	-8.4	-24.1	-48.1	24
	◇	2	P308ETLR175	308 Win.	175	11.34	Edge TLR	X	0.536	0.266	2600	2437	2280	2130	1984	1845	2627	2308	2021	1762	1530	1322	0.6	2.7	6.4	11.8	18.8	-0.1	⊕	-4.4	-15.5	1.0	2.2	⊕	-8.9	-25.5	-50.6	24
	◇	3	P308E	308 Win.	180	11.66	Nosler Partition	X			2570	2388	2213	2045	1885	1734	2640	2278	1957	1672	1420	1202	0.7	3.2	7.5	13.6	22.5	-0.1	⊕	-4.7	-16.4	1.1	2.3	⊕	-9.4	-26.9	-54.7	24
	◇	2	P308TT1	308 Win.	180	11.66	Trophy Bonded Tip	X			2620	2445	2277	2116	1960	1812	2743	2389	2072	1789	1536	1313	0.6	2.9	6.9	12.5	20.3	-0.1	⊕	-4.3	-15.4	1.0	2.2	⊕	-8.9	-25.5	-51.1	24
	◇	2	P3006A3	30-06 Spring.	150	9.72	Nosler AccuBond	X			2910	2696	2493	2298	2112	1934	2820	2421	2069	1758	1485	1246	0.7	3.0	6.8	12.8	20.6	-0.2	⊕	-3.3	-12.2	0.6	1.6	⊕	-7.2	-21.1	-42.6	24
	◇	2	P3006G	30-06 Spring.	150	9.72	Sierra GameKing BTSP	X			2910	2666	2435	2216	2008	1812	2820	2368	1975	1635	1343	1093	0.9	3.4	8.0	14.9	24.3	-0.2	⊕	-3.4	-12.7	0.7	1.7	⊕	-7.6	-22.3	-45.5	24
	◇	2	P3006P	30-06 Spring.	150	9.72	Nosler Ballistic Tip	X			2910	2696	2492	2296	2110	1932	2820	2420	2068	1756	1483	1243	0.7	3.0	6.9	12.8	20.6	-0.2	⊕	-3.3	-12.2	0.6	1.6	⊕	-7.2	-21.1	-42.6	24
	◇	2	P3006A2	30-06 Spring.	165	10.69	Nosler AccuBond	X			2800	2609	2425	2249	2081	1919	2872	2493	2155	1853	1586	1349	0.7	2.8	6.6	12.2	19.6	-0.2	⊕	-3.6	-13.1	0.7	1.8	⊕	-7.8	-22.4	-44.9	24
	◇	2	P3006Q	30-06 Spring.	165	10.69	Nosler Ballistic Tip	X			2800	2609	2425	2249	2081	1919	2872	2493	2155	1853	1586	1349	0.7	2.8	6.6	12.2	19.6	-0.2	⊕	-3.6	-13.1	0.7	1.8	⊕	-7.8	-22.4	-44.9	24
	◇	2	P3006TC2	30-06 Spring.	165	10.69	Trophy Copper	X			2800	2619	2445	2278	2118	1963	2872	2513	2190	1901	1643	1412	0.7	2.6	6.2	11.4	18.4	-0.2	⊕	-3.5	-12.9	0.7	1.8	⊕	-7.6	-22.0	-44.0	24
	◇	2	P3006TT2	30-06 Spring.	165	10.69	Trophy Bonded Tip	X			2800	2598	2405	2221	2044	1875	2872	2473	2119	1806	1531	1288	0.8	2.9	7.0	12.9	20.9	-0.2	⊕	-3.6	-13.3	0.8	1.8	⊕	-7.9	-22.8	-45.8	24
	◇	2	P3006AD	30-06 Spring.	165	10.69	Nosler Partition	X			2830	2607	2395	2193	2000	1818	2934	2490	2101	1761	1465	1210	0.8	3.2	7.7	14.2	23.1	-0.2	⊕	-3.6	-13.3	0.7	1.8	⊕	-7.9	-23.0	-46.8	24
	◇	2	P3006D																																			

ATT.	USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	GOLD MEDAL PRIMER	BALLISTIC COEFFICIENT	MUZZLE VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)	MUZZLE ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)	WIND DRIFT IN INCHES TO MPH CROSSWIND					HEIGHT OF BULLET TRAJECTORY IN INCHES ABOVE OR BELOW LINE OF SIGHT IF ZEROED AT 100 YARDS, SIGHTS 1.5 INCHES ABOVE BORE LINE.					TEST BARREL LENGTH INCHES										
				GRAINS	GRAMS						100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.		100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.					
◊	RMEF	3	P338A1	338 Win. Magnum	225	14.58		X	2800	3917	3467	3059	2689	2356	2055	0.6	2.4	5.6	10.3	16.6	-0.2	⊕	-3.5	-12.7	0.7	1.8	⊕	-7.4	-21.4	-42.6	24
NEW	◊	3	P338LTC1	338 Lapua Magnum	250	16.2		X	2850	4508	4053	3635	3252	2901	2581	0.6	2.1	4.7	8.7	14	-0.2	⊕	-3.3	-11.8	0.6	1.6	⊕	-6.9	-19.8	-39.4	24
◊	◊	3	P35WT1	35 Whelen	225	14.58		X	2600	3377	2761	2238	1793	1428	1128	1.0	4.4	10.3	19.7	32.4	0.0	⊕	-4.9	-17.3	1.2	2.4	⊕	-10.1	-30.2	-62.2	24
◊	◊	3	P375T4	375 H&H Magnum	250	16.2		X	2670	3957	3230	2612	2089	1657	1305	1.0	4.4	10.2	19.4	32.1	-0.1	⊕	-4.5	-16.4	1.1	2.3	⊕	-9.6	-28.6	-59.4	24
◊	◊	4	P375F	375 H&H Magnum	300	19.44		X	2440	3966	3313	2747	2259	1850	1506	1.0	4.2	9.7	18.5	30.0	⊕	-0.1	-5.7	-19.7	0.1	⊕	-5.5	-19.3	-43.9	-80.5	24
◊	◊	3	P4570T4	45-70 Government	300	19.44		X	1850	2280	1731	1307	1003	804	681	2.3	8.7	20.6	37.6	59.3	0.7	⊕	-11.9	-41.6	3.7	5.9	⊕	-23.8	-70.9	-146.5	24
FEDERAL PREMIUM CAPE-SHOK®																															
◊	◊	4	P9362SA	9.3x62 Mauser	286	18.53		X	2360	3537	2928	2403	1959	1589	1285	1.2	4.5	10.8	20.2	32.9	0.1	⊕	-6.0	-21.3	1.6	3.0	⊕	-12.3	-36.1	-73.4	24
◊	◊	4	P9362WH	9.3x62 Mauser	286	18.53		X	2360	3537	2666	1974	1446	1065	815	1.7	7.1	17.1	32.6	53.9	0.1	⊕	-6.8	-24.9	1.9	3.4	⊕	-14.7	-45.0	-96.5	24
◊	◊	4	P9374SA	9.3x74 R	286	18.53		X	2360	3537	2928	2403	1959	1589	1285	1.2	4.5	10.8	20.2	32.9	0.1	⊕	-6.0	-21.3	1.6	3.0	⊕	-12.3	-36.1	-73.4	24
◊	◊	4	P9374WH	9.3x74 R	286	18.53		X	2360	3537	2666	1974	1446	1065	815	1.7	7.1	17.1	32.6	53.9	0.1	⊕	-6.8	-24.9	1.9	3.4	⊕	-14.7	-45.0	-96.5	24
◊	◊	4	P370SA	370 Sako Magnum	286	18.53		X	2550	4129	3440	2845	2331	1899	1540	0.9	4.1	9.4	17.9	29.4	0.0	⊕	-5.0	-17.6	1.2	2.5	⊕	-10.1	-30.0	-61.5	24
◊	◊	4	P370WH	370 Sako Magnum	286	18.53		X	2450	3812	2887	2147	1578	1156	872	1.6	6.6	16.2	30.9	51.5	0.1	⊕	-6.1	-22.8	1.6	3.1	⊕	-13.6	-41.3	-88.7	24
◊	◊	4	P375SA	375 H&H Magnum	300	19.44		X	2450	3998	3206	2541	1994	1553	1213	1.3	5.2	12.4	23.3	38.6	0.1	⊕	-5.7	-20.7	1.5	2.9	⊕	-12.1	-35.8	-74.8	24
◊	◊	4	P375T1	375 H&H Magnum	300	19.44		X	2400	3837	3105	2486	1974	1557	1230	1.3	5.0	12.1	22.6	37.3	⊕	-0.2	-6.3	-21.9	0.1	⊕	-5.9	-21.3	-48.5	-90.7	24
◊	◊	4	P375T2	375 H&H Magnum	300	19.44		X	2440	3966	2978	2194	1597	1163	877	1.7	6.9	16.9	32.2	53.6	0.1	⊕	-6.3	-23.4	1.7	3.1	⊕	-13.9	-42.6	-91.6	24
◊	◊	4	P375WH	375 H&H Magnum	300	19.44		X	2500	4163	3161	2357	1735	1269	951	1.5	6.4	15.8	30.0	50.1	0.1	⊕	-5.8	-21.7	1.5	2.9	⊕	-13.0	-39.4	-84.6	24
◊	◊	4	P416SA	416 Rigby	400	25.92		X	2350	4905	4021	3264	2633	2111	1693	1.2	4.7	11.5	21.5	35.2	⊕	-0.3	-6.6	-22.6	0.1	⊕	-6.1	-21.9	-49.4	-91.6	24
◊	◊	4	P416T1	416 Rigby	400	25.92		X	2300	4698	3859	3139	2540	2043	1647	1.2	4.8	11.6	21.6	35.4	0.2	⊕	-6.4	-23.0	1.8	3.2	⊕	-13.3	-38.6	-79.3	24
◊	◊	4	P416T2	416 Rigby	400	25.92		X	2370	4988	3815	2870	2137	1591	1217	1.6	6.6	16.1	30.5	50.5	0.1	⊕	-6.6	-24.2	1.8	3.3	⊕	-14.3	-43.1	-91.8	24
◊	◊	4	P416WH	416 Rigby	400	25.92		X	2400	5115	3865	2867	2103	1545	1173	1.7	6.8	16.7	31.9	52.8	0.1	⊕	-6.5	-24.0	1.7	3.2	⊕	-14.2	-43.4	-92.9	24
◊	◊	4	P416RSA	416 Rem. Magnum	400	25.92		X	2400	5115	4202	3419	2760	2216	1774	1.2	4.7	11.1	20.9	34.1	⊕	-0.2	-6.2	-21.3	0.1	⊕	-5.8	-20.8	-47.1	-87.1	24
◊	◊	4	P416RT1	416 Rem. Magnum	400	25.92		X	2400	5115	4215	3443	2789	2248	1806	1.2	4.6	10.9	20.5	33.4	0.1	⊕	-5.8	-20.6	1.5	2.9	⊕	-11.9	-35.1	-71.8	24
◊	◊	4	P416RT2	416 Rem. Magnum	400	25.92		X	2400	5115	3918	2951	2200	1636	1246	1.6	6.5	15.8	29.9	49.7	0.1	⊕	-6.4	-23.5	1.7	3.2	⊕	-13.9	-41.9	-89.2	24
◊	◊	4	P416RWH	416 Rem. Magnum	400	25.92		X	2400	5115	3865	2867	2103	1545	1173	1.7	6.8	16.7	31.9	52.8	0.1	⊕	-6.5	-24.0	1.7	3.2	⊕	-14.2	-43.4	-92.9	24
◊	◊	4	P458T1	458 Win. Magnum	500	32.4		X	2250	4496	3641	2919	2327	1846	1478	1.3	5.3	12.9	23.8	39.2	0.2	⊕	-7.0	-24.8	1.9	3.5	⊕	-14.3	-41.6	-86.3	24
◊	◊	4	P458T2	458 Win. Magnum	500	32.4		X	2090	4849	3684	2773	2080	1594	1285	1.7	7.7	18.3	34.4	55.8	0.4	⊕	-9.2	-32.2	2.7	4.6	⊕	-18.5	-55.8	-117.6	24
◊	◊	4	P458T3	458 Win. Magnum	500	32.4		X	1950	4221	3320	2593	2028	1613	1333	1.8	7.2	16.9	31.2	50.2	0.6	⊕	-10.2	-35.3	3.1	5.1	⊕	-20.1	-59.2	-122.6	24
◊	◊	4	P458WH	458 Win. Magnum	500	32.4		X	2050	4665	3455	2530	1864	1425	1167	2.0	8.6	20.7	38.7	62.0	0.5	⊕	-9.8	-35.0	2.9	4.9	⊕	-20.4	-61.6	-129.9	24
◊	◊	4	P458SA	458 Win. Magnum	500	32.4		X	2090	4849	3916	3144	2508	2009	1631	1.2	5.9	13.7	25.7	41.8	0.0	-0.7	-9.9	-31.1	0.3	0.0	-8.5	-29.2	-65.5	-121.1	24
◊	◊	4	P458LT1	458 Lott	500	32.4		X	2300	5873	4514	3419	2566	1933	1496	1.6	6.7	16.1	30.5	50.3	0.2	⊕	-7.1	-25.6	2.0	3.6	⊕	-14.9	-45.2	-95.7	24
◊	◊	4	P458LT2	458 Lott	500	32.4		X	2300	5873	4689	3699	2900	2260	1782	1.4	5.6	13.6	25.2	41.7	0.2	⊕	-6.7	-24.1	1.8	3.3	⊕	-14.1	-41.2	-86.0	24
◊	◊	4	P458LWH	458 Lott	500	32.4		X	2250	5620	4209	3105	2269	1686	1320	1.7	7.6	18.2	34.7	56.9	0.2	⊕	-7.8	-28.0	2.2	3.9	⊕	-16.3	-50.0	-107.0	24
◊	◊	4	P470SA	470 Nitro Express	500	32.4		X	2150	5132	4163	3353	2685	2148	1736	1.2	5.5	13.2	24.4	39.9	0.0	-0.6	-9	-29.0	0.3	⊕	-7.9	-27.3	-61.0	-113.0	24
◊	◊	4	P470T1	470 Nitro Express	500	32.4		X	2150	5132	3973	3047	2318	1784	1419	1.5	7.0	16.4	31.0	50.6	0.3	⊕	-8.4	-29.3	2.4	4.2	⊕	-16.7	-50.5	-106.1	24
◊	◊	4	P470T2	470 Nitro Express	500	32.4		X	2150	5132	3902	2937	2195	1669	1329	1.6	7.5	17.8	33.5	54.7	0.3	⊕	-8.6	-30.2	2.5	4.3	⊕	-17.3	-52.6	-111.3	24
◊	◊	4	P470WH	470 Nitro Express	500	32.4		X	2150	5132	3819	2809	2057	1546	1238	1.8	8.1	19.4	36.7	59.6	0.3	⊕	-8.8	-31.3	2.5	4.4	⊕	-18.1	-55.4	-117.8	24
◊	◊	4	P500NSA	500 Nitro Express	570	36.94		X	2100	5581	4336	3342	2559	1985	1594	1.5	7.0	16.5	31.0	50.5	⊕	-0.7	-10.2	-32.8	0.3	⊕	-8.8	-30.7	-70.1	-131.9	24
◊	◊	4	P500NWH	500 Nitro Express	570	36.94		X	2100	5581	4143	3041	2232	1691	1369	1.8	8.4	20.1	37.7	60.8	0.4	⊕	-9.3	-33.1	2.7	4.6	⊕	-19.2	-58.3	-123.7	24
FEDERAL PREMIUM VARMINT & PREDATOR																															
◊	◊	1	P204B	204 Ruger	32	2.07		X	4030	1154	853	626	452	319	219	1	4.4	10.6	20.4	34.6	-0.4	⊕	-1.4								

USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)					ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)					WIND DRIFT IN INCHES (10 MPH CROSSWIND)					HEIGHT OF BULLET TRAJECTORY IN INCHES ABOVE OR BELOW LINE OF SIGHT IF ZEROED AT YARDS. SIGHTS 1/8 INCHES ABOVE BORE LINE. AVERAGE RANGE LONG RANGE					TEST BARREL LENGTH INCHES							
			GRAINS	GRAMS		MUZZLE	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	MUZZLE	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	100 YDS.	200 YDS.	300 YDS.		400 YDS.	500 YDS.					
FUSION																																	
2	F223FS1	223 Rem.	62	4.02	Fusion	3000	2697	2413	2148	1898	1671	1239	1001	802	635	496	384	1.0	4.0	9.7	18.1	30.4	-0.2	⊕	-3.3	-12.6	0.6	1.6	⊕	-7.7	-22.8	-48.0	24
2	F22250FS1	22-250 Rem.	55	3.56	Fusion	3600	3108	2667	2267	1902	1580	1583	1179	869	627	442	305	1.1	4.8	11.6	22.3	38.3	-0.4	⊕	-2.1	-9.2	0.2	1.1	⊕	-6.0	-18.8	-41.8	24
2	F243FS1	243 Win.	95	6.16	Fusion	2980	2730	2493	2268	2056	1854	1873	1572	1311	1085	891	725	0.8	3.3	7.8	14.6	23.7	-0.2	⊕	-3.2	-11.9	0.6	1.6	⊕	-7.2	-21.2	-43.2	24
2	F2506FS1	25-06 Rem.	120	7.78	Fusion	2980	2778	2585	2399	2222	2052	2366	2056	1780	1534	1315	1122	0.6	2.6	6.0	11.3	18.3	-0.2	⊕	-3.0	-11.2	0.5	1.5	⊕	-6.7	-19.5	-39.3	24
2	F65CRDFS1	6.5 Creedmoor	140	9.07	Fusion	2725	2522	2327	2142	1964	1796	2308	1977	1683	1426	1199	1003	0.8	3.1	7.5	13.8	22.5	-0.1	⊕	-4	-14.4	0.9	2	⊕	-8.5	-24.4	-49.4	24
3	F6555FS1	6.5x55 Swedish	140	9.07	Fusion	2530	2336	2150	1973	1804	1648	1990	1696	1437	1210	1012	844	0.8	3.6	8.3	15.3	25.3	0.0	⊕	-4.9	-17.4	1.2	2.5	⊕	-9.9	-28.7	-58.7	24
2	F6555FSI2	6.5x55 Swedish	156	10.11	Fusion	2500	2326	2159	1999	1845	1702	2165	1874	1614	1384	1179	1003	0.7	3.3	7.7	13.7	22.7	0.0	⊕	-5.0	-17.5	1.2	2.5	⊕	-10.0	-28.3	-57.5	24
2	F260FS1	260 Rem.	120	7.78	Fusion	2950	2710	2483	2266	2061	1866	2319	1957	1642	1369	1132	928	0.8	3.3	7.6	14.2	23.0	-0.2	⊕	-3.2	-12.1	0.6	1.6	⊕	-7.3	-21.4	-43.4	24
2	F270FS1	270 Win.	130	8.42	Fusion	3050	2811	2584	2368	2163	1968	2685	2280	1927	1618	1350	1117	0.7	3.0	7.0	13.1	21.3	-0.2	⊕	-2.9	-11.0	0.5	1.5	⊕	-6.6	-19.6	-39.8	24
2	F270FS2	270 Win.	150	9.72	Fusion	2850	2655	2468	2289	2117	1953	2705	2347	2029	1745	1493	1270	0.7	2.8	6.5	12.0	19.3	-0.2	⊕	-3.4	-12.6	0.7	1.7	⊕	-7.4	-21.6	-43.3	24
2	F270WSMFS1	270 Win. Short Magnum	150	9.72	Fusion	3060	2867	2682	2504	2333	2169	3118	2737	2395	2088	1813	1567	0.5	2.4	5.5	10.0	16.3	-0.3	⊕	-2.8	-10.3	0.4	1.4	⊕	-6.2	-17.9	-36.1	24
2	F708FS2	7mm-08 Rem.	120	7.78	Fusion	3000	2719	2455	2206	1971	1753	2398	1970	1605	1296	1035	819	0.9	3.7	8.8	16.5	27.3	-0.2	⊕	-3.2	-12.2	0.6	1.6	⊕	-7.4	-22.0	-45.6	24
2	F708FS1	7mm-08 Rem.	140	9.07	Fusion	2850	2615	2393	2181	1980	1791	2525	2126	1779	1479	1219	997	0.9	3.4	8.0	14.9	24.3	-0.2	⊕	-3.6	-13.3	0.7	1.8	⊕	-7.9	-23.2	-47.2	24
2	F280FS1	280 Rem.	140	9.07	Fusion	2990	2794	2607	2427	2255	2089	2779	2427	2113	1831	1580	1357	0.6	2.5	5.8	10.7	17.5	-0.2	⊕	-3.0	-11.0	0.5	1.5	⊕	-6.5	-19.1	-38.5	24
3	F7RFS1	7mm Rem. Magnum	150	9.72	Fusion	3050	2861	2680	2505	2338	2177	3098	2726	2391	2091	1820	1578	0.5	2.3	5.4	9.8	16.0	-0.3	⊕	-2.8	-10.4	0.4	1.4	⊕	-6.2	-17.9	-36.1	24
3	F7RFS2	7mm Rem. Magnum	175	11.34	Fusion	2760	2592	2430	2274	2123	1978	2960	2610	2294	2008	1751	1521	0.7	2.5	5.8	10.8	17.4	-0.1	⊕	-3.6	-13.2	0.8	1.8	⊕	-7.8	-22.3	-44.5	24
3	F7WSMFS1	7mm Win. Short Magnum	150	9.72	Fusion	3100	2911	2730	2556	2388	2227	3200	2822	2481	2175	1899	1652	0.5	2.2	5.2	9.5	15.4	-0.3	⊕	-2.6	-9.9	0.4	1.3	⊕	-6.0	-17.2	-34.7	24
2	F76239FS1	7.62x39mm Soviet	123	7.97	Fusion	2350	2077	1823	1593	1389	1222	1508	1178	907	693	527	407	1.5	6.0	14.8	27.7	45.9	0.1	⊕	-6.5	-23.8	1.8	3.3	⊕	-14.0	-41.6	-87.7	24
2	F3030FS1	30-30 Win.	150	9.72	Fusion	2390	2086	1805	1553	1337	1167	1902	1449	1085	803	595	453	1.6	6.6	16.2	30.8	51.1	0.1	⊕	-6.5	-23.9	1.7	3.2	⊕	-14.2	-42.8	-91.5	24
2	F3030FS2	30-30 Win.	170	11.02	Fusion	2200	1950	1719	1510	1329	1182	1827	1435	1115	860	666	527	1.4	6.3	15.1	28.5	46.7	0.3	⊕	-7.7	-27.2	2.2	3.9	⊕	-15.6	-46.8	-97.8	24
2	F308FS1	308 Win.	150	9.72	Fusion	2820	2600	2391	2191	2001	1821	2648	2252	1903	1599	1333	1104	0.8	3.2	7.6	14.1	22.9	-0.2	⊕	-3.6	-13.4	0.7	1.8	⊕	-8.0	-23.1	-46.9	24
2	F308FS2	308 Win.	165	10.69	Fusion	2700	2501	2310	2128	1954	1789	2671	2291	1955	1660	1399	1173	0.7	3.1	7.5	13.7	22.3	-0.1	⊕	-4.1	-14.7	0.9	2.0	⊕	-8.6	-24.8	-50.1	24
2	F308FS3	308 Win.	180	11.66	Fusion	2600	2427	2260	2101	1947	1801	2702	2354	2042	1763	1515	1296	0.6	2.9	6.9	12.6	20.4	-0.1	⊕	-4.4	-15.7	1.0	2.2	⊕	-9.1	-25.8	-51.9	24
2	F3006FS1	30-06 Spring.	150	9.72	Fusion	2900	2674	2459	2254	2059	1874	2801	2382	2014	1693	1412	1169	0.8	3.1	7.4	13.7	22.2	-0.2	⊕	-3.4	-12.5	0.7	1.7	⊕	-7.5	-21.8	-44.1	24
2	F3006FS2	30-06 Spring.	165	10.69	Fusion	2790	2590	2399	2217	2042	1875	2852	2458	2109	1800	1527	1287	0.8	2.9	7.0	12.9	20.7	-0.1	⊕	-3.7	-13.4	0.8	1.8	⊕	-7.9	-22.9	-46.0	24
2	F3006FS3	30-06 Spring.	180	11.66	Fusion	2700	2521	2349	2185	2026	1874	2913	2540	2206	1907	1640	1403	0.7	2.7	6.6	12.1	19.4	-0.1	⊕	-4.0	-14.3	0.9	2.0	⊕	-8.4	-23.9	-47.8	24
2	F300WFS1	300 Win. Magnum	150	9.72	Fusion	3200	2958	2729	2512	2304	2107	3410	2915	2481	2101	1769	1479	0.6	2.7	6.4	11.8	19.4	-0.3	⊕	-2.5	-9.6	0.3	1.2	⊕	-5.9	-17.3	-35.4	24
2	F300WFS2	300 Win. Magnum	165	10.69	Fusion	3080	2865	2660	2464	2276	2097	3475	3006	2591	2223	1898	1610	0.6	2.6	6.1	11.2	18.3	-0.3	⊕	-2.8	-10.4	0.4	1.4	⊕	-6.3	-18.3	-37.1	24
2	F300WFS3	300 Win. Magnum	180	11.66	Fusion	2960	2766	2580	2401	2230	2065	3502	3057	2659	2304	1987	1704	0.6	2.6	5.9	10.9	17.7	-0.2	⊕	-3.1	-11.3	0.6	1.5	⊕	-6.7	-19.5	-39.4	24
2	F300WSMFS3	300 Win. Short Magnum	150	9.72	Fusion	3250	3005	2774	2555	2345	2146	3518	3008	2563	2173	1832	1534	0.6	2.7	6.3	11.6	18.9	-0.3	⊕	-2.4	-9.3	0.3	1.2	⊕	-5.7	-16.7	-34.2	24
2	F300WSMFS1	300 Win. Short Magnum	165	10.69	Fusion	3100	2885	2680	2484	2296	2116	3521	3048	2630	2260	1931	1641	0.6	2.6	6.0	11.1	18.1	-0.3	⊕	-2.7	-10.2	0.4	1.4	⊕	-6.2	-18.0	-36.5	24
2	F300WSMFS2	300 Win. Short Magnum	180	11.66	Fusion	2950	2756	2570	2391	2220	2055	3478	3035	2639	2285	1969	1688	0.6	2.6	5.9	11.0	17.9	-0.2	⊕	-3.1	-11.4	0.6	1.5	⊕	-6.8	-19.7	-39.7	24
2	F338FFS2	338 Federal	200	12.96	Fusion	2700	2487	2284	2090	1905	1733	3237	2746	2316	1940	1612	1334	0.8	3.4	8.1	14.8	24.4	-0.1	⊕	-4.1	-15.0	0.9	2.1	⊕	-8.8	-25.3	-51.9	24
2	F338FS1	338 Win. Magnum	225	14.58	Fusion	2850	2661	2479	2305	2138	1978	4058	3537	3071	2654	2283	1954	0.7	2.7	6.2	11.6	18.7	-0.2	⊕	-3.4	-12.5	0.7	1.7	⊕	-7.3	-21.3	-42.8	24
2	F35FS1	35 Whelen	200	12.96	Fusion	2800	2537	2289	2055	1835	1634	3481	2858	2327	1876	1495	1185	1.0	4.0	9.5	17.7	29.6	-0.1	⊕	-3.9	-14.5	0.8	2.0	⊕	-8.7	-25.4	-53.0	24
2	F4570FS1	45-70 Government	300	19.44	Fusion	1850	1612	1401	1227	1099	1011	2280	1731	1307	1003	804	681																

ATT	USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)					ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)					WIND DRIFT IN INCHES (10 MPH CROSSWIND)					HEIGHT OF BULLET TRAJECTORY IN INCHES ABOVE OR BELOW LINE OF SIGHT IF ZEROED AT 100 YARDS, SIGHTS 1.5 INCHES ABOVE BORE LINE. AVERAGE RANGE LONG RANGE										TEST BARREL LENGTH INCHES		
				GRAINS	GRAMS		MUZZLE	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	MUZZLE	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	50 YDS.	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.					
FEDERAL POWER-SHOK®																																		
1		222A	222 Rem.	50	3.24	SP	3140	2626	2166	1755	1408	1152	1095	765	521	342	220	147	1.6	6.9	17.2	34.0	58.9	-0.2	⊕	-3.6	-14.8	0.7	1.8	⊕	-9.3	-30.4	-70.1	24
1		223A	223 Rem.	55	3.56	SP	3240	2800	2400	2035	1705	1420	1282	957	703	505	355	246	1.2	5.3	12.9	25.0	42.6	-0.3	⊕	-3.0	-12.0	0.5	1.5	⊕	-7.6	-23.8	-52.3	24
2		223L	223 Rem.	64	4.15	SP	3050	2682	2342	2027	1740	1485	1322	1022	779	584	430	313	1.2	4.9	11.8	22.6	38.2	-0.2	⊕	-3.3	-13.1	0.6	1.7	⊕	-8.1	-24.7	-53.2	24
1		22250A	22-250 Rem.	55	3.56	SP	3650	3136	2679	2264	1888	1558	1627	1201	876	626	435	296	1.2	4.9	11.9	22.9	39.4	-0.4	⊕	-2.1	-9.0	0.1	1.0	⊕	-5.9	-18.7	-41.8	24
2		243AS	243 Win.	80	5.18	SP	3330	3051	2790	2543	2309	2088	1970	1654	1382	1148	947	774	0.7	3.0	6.9	12.8	21.1	-0.3	⊕	-2.2	-9.0	0.2	1.1	⊕	-5.6	-16.6	-34.2	24
2		24385LFA	243 Win.	85	5.51	Copper HP	3200	2783	2403	2054	1737	1459	1933	1462	1090	796	569	402	1.2	5.1	12.4	23.9	40.5	-0.3	⊕	-3.0	-12.1	0.5	1.5	⊕	-7.6	-23.6	-51.4	24
2		243B	243 Win.	100	6.48	SP	2960	2697	2448	2213	1991	1783	1945	1615	1331	1087	880	706	0.9	3.6	8.4	15.8	25.9	-0.2	⊕	-3.3	-12.4	0.6	1.6	⊕	-7.5	-22.1	-45.4	24
2		6B	6mm Rem.	100	6.48	SP	3100	2827	2571	2329	2100	1883	2134	1775	1468	1204	979	787	0.8	3.4	7.9	14.8	24.1	-0.3	⊕	-2.9	-11.0	0.5	1.4	⊕	-6.7	-19.9	-40.7	24
2		2506BS	25-06 Rem.	117	7.58	SP	3030	2767	2519	2283	2061	1851	2385	1989	1648	1354	1104	890	0.8	3.4	8	14.9	24.4	-0.2	⊕	-3.1	-11.6	0.5	1.5	⊕	-7.0	-20.8	-42.5	24
2		6555B	6.5x55 Swedish	140	9.07	SP	2650	2450	2258	2075	1900	1736	2183	1865	1585	1338	1122	937	0.7	3.3	7.8	14.3	23.6	-0.1	⊕	-4.3	-15.5	1.0	2.2	⊕	-9.0	-25.9	-52.8	24
2		270A	270 Win.	130	8.42	SP	3060	2803	2560	2329	2111	1904	2703	2267	1891	1566	1286	1046	0.8	3.2	7.6	14.2	23.1	-0.2	⊕	-3.0	-11.2	0.5	1.5	⊕	-6.7	-20.0	-40.9	24
2		270130LFA	270 Win.	130	8.42	Copper HP	3060	2729	2422	2135	1867	1625	2703	2150	1693	1315	1006	763	1.0	4.3	10.3	19.3	32.6	-0.2	⊕	-3.2	-12.4	0.6	1.6	⊕	-7.6	-22.7	-48.4	24
2		270B	270 Win.	150	9.72	SPRN	2830	2486	2166	1871	1606	1374	2667	2057	1563	1166	859	629	1.3	5.4	12.8	24.9	41.7	-0.1	⊕	-4.2	-15.7	0.9	2.1	⊕	-9.4	-29.2	-62.6	24
2		270WSME	270 Win. Short Magnum	130	8.42	SP	3250	2978	2722	2480	2251	2034	3049	2559	2138	1775	1462	1194	0.7	3.0	7.1	13.2	21.7	-0.3	⊕	-2.4	-9.6	0.3	1.2	⊕	-5.9	-17.5	-36.0	24
2		7B	7mm Mauser	140	9.07	SP	2660	2454	2256	2069	1889	1722	2199	1871	1583	1330	1109	922	0.8	3.4	8.0	14.7	24.3	-0.1	⊕	-4.3	-15.5	1.0	2.1	⊕	-9.0	-25.9	-53.1	24
2		7A	7mm Mauser	175	11.34	SPRN	2390	2090	1812	1564	1348	1177	2219	1697	1276	950	706	538	1.6	6.5	16.0	30.2	50.2	0.1	⊕	-6.5	-23.7	1.7	3.2	⊕	-14.1	-42.4	-90.4	24
2		708CS	7mm-08 Rem.	150	9.72	SP	2650	2438	2235	2043	1859	1689	2339	1979	1664	1390	1151	950	0.8	3.5	8.3	15.3	25.4	-0.1	⊕	-4.4	-15.7	1.0	2.2	⊕	-9.2	-26.5	-54.4	24
2		280B	280 Rem.	150	9.72	SP	2890	2667	2455	2253	2060	1877	2782	2369	2008	1690	1414	1173	0.8	3.1	7.3	13.6	22.0	-0.2	⊕	-3.4	-12.6	0.7	1.7	⊕	-7.5	-21.9	-44.2	24
2		7RA	7mm Rem. Magnum	150	9.72	SP	3110	2841	2587	2347	2120	1905	3221	2687	2229	1834	1497	1209	0.8	3.3	7.7	14.5	23.6	-0.3	⊕	-2.8	-10.8	0.4	1.4	⊕	-6.6	-19.6	-40.1	24
3		7RB	7mm Rem. Magnum	175	11.34	SP	2860	2646	2441	2246	2060	1882	3178	2720	2316	1961	1649	1377	0.8	3.0	7.2	13.3	21.4	-0.2	⊕	-3.5	-12.8	0.7	1.7	⊕	-7.6	-22.1	-44.6	24
2		7WSME	7mm Win. Short Magnum	150	9.72	SP	3100	2831	2578	2338	2112	1898	3200	2669	2213	1821	1486	1199	0.8	3.3	7.7	14.5	23.7	-0.3	⊕	-2.9	-10.9	0.5	1.4	⊕	-6.6	-19.7	-40.4	24
1		30CA	30 Carbine	110	7.13	SPRN	1990	1564	1231	1031	919	839	967	597	370	260	206	172	3.5	15.1	35.8	63.7	97.4	0.7	⊕	-13.0	-49.1	3.9	6.5	⊕	-29.7	-90.9	-190.2	18
2		300BLK120LFA	300 Blackout	120	7.78	Copper HP	2100	1799	1533	1307	1136	1024	1175	863	626	455	344	279	1.9	8.7	20.9	39.2	63.2	0.4	⊕	-9.4	-33.7	2.7	4.7	⊕	-14.1	-59.9	-127.1	16
2		76239B	7.62x39mm Soviet	123	7.97	SP	2350	2055	1783	1539	1329	1164	1508	1153	868	646	482	370	1.6	6.7	16.2	30.7	50.8	0.2	⊕	-6.7	-24.6	1.8	3.4	⊕	-14.5	-43.9	-93.3	20
1		3030C	30-30 Win.	125	8.1	HP	2570	2083	1656	1309	1079	952	1833	1204	761	476	323	252	2.3	10.2	25.6	49.9	81.6	0.1	⊕	-6.7	-26.4	1.7	3.3	⊕	-16.4	-53.7	-120.6	24
2		3030A	30-30 Win.	150	9.72	SPFN	2390	2019	1686	1399	1179	1037	1902	1358	947	652	463	358	2.0	8.6	20.8	40.0	65.9	0.1	⊕	-7.2	-26.7	1.9	3.6	⊕	-15.9	-50.1	-109.8	24
2		3030B	30-30 Win.	170	11.02	SPRN	2200	1894	1619	1380	1191	1060	1827	1354	990	719	535	424	1.8	8.1	19.4	36.7	59.9	0.3	⊕	-8.4	-30	2.4	4.2	⊕	-17.4	-53.5	-114.4	24
2		300A	300 Savage	150	9.72	SP	2630	2353	2094	1850	1629	1430	2304	1844	1460	1140	884	681	1.1	4.9	11.5	22.1	36.4	-0.1	⊕	-4.8	-17.5	1.2	2.4	⊕	-10.2	-31.1	-64.8	24
2		300B	300 Savage	180	11.66	SP	2350	2137	1934	1745	1571	1412	2207	1825	1495	1217	986	797	1.2	4.5	10.9	20.5	33.3	0.1	⊕	-6.1	-21.6	1.6	3.0	⊕	-12.5	-36.5	-74.4	24
2		308A	308 Win.	150	9.72	SP	2820	2532	2261	2007	1771	1557	2648	2134	1702	1341	1044	807	1.1	4.4	10.4	19.7	32.9	-0.1	⊕	-3.9	-14.7	0.8	2.0	⊕	-8.8	-26.3	-55.2	24
2		308150LFA	308 Win.	150	9.72	Copper HP	2820	2497	2195	1915	1661	1434	2648	2076	1605	1221	918	685	1.2	5.0	12.0	23.0	38.4	-0.1	⊕	-4.1	-15.4	0.9	2.1	⊕	-9.2	-28.3	-59.9	24
2		308B	308 Win.	180	11.66	SP	2570	2345	2131	1929	1740	1565	2640	2197	1816	1486	1209	979	0.9	4.1	9.4	17.8	29.4	0.0	⊕	-4.9	-17.3	1.2	2.4	⊕	-10.0	-29.5	-60.7	24
1		3006CS	30-06 Spring.	125	8.1	SP	3140	2779	2446	2136	1850	1593	2736	2143	1660	1267	949	704	1.0	4.5	10.8	20.4	34.6	-0.3	⊕	-3.0	-11.9	0.5	1.5	⊕	-7.4	-22.3	-48.0	24
2		3006A	30-06 Spring.	150	9.72	SP	2910	2616	2340	2081	1839	1619	2820	2279	1823	1442	1126	873	1.0	4.2	10.0	18.7	31.4	-0.2	⊕	-3.6	-13.6	0.7	1.8	⊕	-8.2	-24.4	-51.3	24
2		3006150LFA	30-06 Spring.	150	9.72	Copper HP	2910	2580	2273	1988	1725	1491	2820	2217	1721	1316	991	740	1.2	4.8	11.5	21.9	36.7	-0.2	⊕									

FEDERAL® RIFLE

ATT	USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	MUZZLE	VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)					MUZZLE	ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)					WIND DRIFT IN INCHES TO MPH CROSSWIND					HEIGHT OF BULLET TRAJECTORY IN INCHES ABOVE OR BELOW LINE OF SIGHT IF ZEROED AT 100 YARDS, SIGHTS 1.5 INCHES ABOVE BORE LINE. AVERAGE RANGE LONG RANGE										TEST BARREL LENGTH INCHES
				GRAINS	GRAMS			100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.		100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	50 YDS.	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.					
FEDERAL® NON-TYPICAL																																		
2		243DT100	243 Win.	100	6.48	SP	2960	2697	2448	2213	1991	1783	1945	1615	1331	1087	880	706	0.9	3.6	8.4	15.8	25.9	-0.2	⊕	-3.3	-12.4	0.6	1.6	⊕	-7.5	-22.1	-45.4	24
2		65CDT1	6.5 Creedmoor	140	9.07	SP	2725	2522	2327	2142	1964	1796	2308	1977	1683	1426	1199	1003	0.8	3.1	7.5	13.8	22.5	-0.1	⊕	-4	-14.4	0.9	2	⊕	-8.5	-24.4	-49.4	24
2		270DT130	270 Win.	130	8.42	SP	3060	2803	2560	2329	2111	1904	2703	2267	1891	1566	1286	1046	0.8	3.2	7.6	14.2	23.1	-0.2	⊕	-3.0	-11.2	0.5	1.5	⊕	-6.7	-20.0	-40.9	24
2		270DT150	270 Win.	150	9.72	SPRN	2830	2486	2166	1871	1606	1374	2667	2057	1563	1166	859	629	1.3	5.4	12.8	24.9	41.7	-0.1	⊕	-4.2	-15.7	0.9	2.1	⊕	-9.4	-29.2	-62.6	24
2		3030DT150	30-30 Win.	150	9.72	SPFN	2390	2019	1686	1399	1179	1037	1902	1358	947	652	463	358	2.0	8.6	20.8	40.0	65.9	0.1	⊕	-7.2	-26.7	1.9	3.6	⊕	-15.9	-50.1	-109.8	24
2		3030DT170	30-30 Win.	170	11.02	SPRN	2200	1894	1619	1380	1191	1060	1827	1354	990	719	535	424	1.8	8.1	19.4	36.7	59.9	0.3	⊕	-8.4	-30	2.4	4.2	⊕	-17.4	-53.5	-114.4	24
2		308DT150	308 Win.	150	9.72	SP	2820	2532	2261	2007	1771	1557	2648	2134	1702	1341	1044	807	1.1	4.4	10.4	19.7	32.9	-0.1	⊕	-3.9	-14.7	0.8	2.0	⊕	-8.8	-26.3	-55.2	24
2		308DT180	308 Win.	180	11.66	SP	2570	2345	2131	1929	1740	1565	2640	2197	1816	1486	1209	979	0.9	4.1	9.4	17.8	29.4	0.0	⊕	-4.9	-17.3	1.2	2.4	⊕	-10.0	-29.5	-60.7	24
2		3006DT150	30-06 Spring.	150	9.72	SP	2910	2616	2340	2081	1839	1619	2820	2279	1823	1442	1126	873	1.0	4.2	10.0	18.7	31.4	-0.2	⊕	-3.6	-13.6	0.7	1.8	⊕	-8.2	-24.4	-51.3	24
2		3006DT180	30-06 Spring.	180	11.66	SP	2700	2470	2252	2045	1848	1667	2913	2439	2026	1671	1365	1111	0.9	3.7	8.8	16.2	27.0	-0.1	⊕	-4.2	-15.3	1.0	2.1	⊕	-9.0	-26.2	-54.0	24
2		7RDT150	7mm Rem. Magnum	150	9.72	SP	3110	2841	2587	2347	2120	1905	3221	2687	2229	1834	1497	1209	0.8	3.3	7.7	14.5	23.6	-0.3	⊕	-2.8	-10.8	0.4	1.4	⊕	-6.6	-19.6	-40.1	24
2		300WDT150	300 Win. Magnum	150	9.72	SP	3150	2898	2661	2435	2221	2017	3305	2798	2358	1975	1643	1355	0.7	3.0	6.9	12.9	21.1	-0.3	⊕	-2.7	-10.2	0.4	1.3	⊕	-6.2	-18.3	-37.5	24
3		300WDT180	300 Win. Magnum	180	11.66	SP	2960	2746	2542	2346	2160	1982	3502	3013	2582	2200	1864	1570	0.7	2.9	6.6	12.3	20.0	-0.2	⊕	-3.1	-11.6	0.6	1.6	⊕	-6.9	-20.3	-41.0	24
NEW		450BMDT1	450 Bushmaster	300	19.44	SP	1900	1602	1346	1153	1028	945	2405	1708	1208	885	703	595	2.7	10.8	25.6	46.5	72.4	0.7	⊕	-12.2	-43.7	3.7	6.1	⊕	-25.4	-77.1	-160.6	24
FEDERAL VARMINT & PREDATOR																																		
1		AE17H20TVP	17 Hornet	20	1.3	Tipped Varmint	3610	3042	2541	2092	1694	1361	579	411	287	194	127	82	1.3	5.7	14.0	27.5	47.7	-0.4	⊕	-2.3	-10.1	0.2	1.1	⊕	-6.6	-21.4	-49.1	24
1		AE22H35TVP	22 Hornet	35	2.27	Tipped Varmint	3000	2188	1526	1094	908	795	699	372	181	93	64	49	3.0	14.4	38.3	74.2	118.8	-0.1	⊕	-6.1	-28.3	1.4	3.1	⊕	-19.1	-66.9	-152.6	24
1		V204VM32	204 Ruger	32	2.07	Hornady V-MAX	4100	3536	3040	2596	2193	1827	1194	888	657	479	342	237	1	4.2	10.2	19.4	32.8	-0.4	⊕	-1.3	-6.4	-0.1	0.6	⊕	-4.4	-14.1	-31.1	24
1		V223VM40	223 Rem. (5.56x45mm)	40	2.59	Hornady V-MAX	3800	3249	2782	2324	1927	1579	1282	937	677	479	330	221	1.1	4.9	11.8	22.8	39.4	-0.4	⊕	-1.8	-8.2	0.1	0.9	⊕	-5.5	-17.6	-39.5	24
1.5		AE22350VP	223 Rem.	50	3.24	JHP	3325	2839	2402	2006	1653	1355	1227	895	640	447	303	204	1.3	5.6	13.8	27.1	46.5	-0.3	⊕	-2.8	-11.8	0.4	1.4	⊕	-7.5	-24.0	-53.7	24
1		V223VM53	223 Rem. (5.56x45mm)	53	3.43	Hornady V-MAX	3400	3046	2720	2416	2132	1868	1360	1092	871	687	535	410	0.9	3.7	8.7	16.5	27.3	-0.3	⊕	-2.3	-9.2	0.2	1.1	⊕	-5.8	-17.7	-37.1	24
1		V224VLKM60	224 Valkyrie	60	3.89	Hornady V-MAX	3300	2923	2577	2255	1958	1687	1451	1138	884	678	511	379	1	4.3	10.2	19.3	32.4	-0.3	⊕	-2.6	-10.4	0.3	1.3	⊕	-6.5	-20	-42.8	24
1		V22250VM40	22-250 Rem.	40	2.59	Hornady V-MAX	4200	3597	3070	2602	2179	1798	1567	1149	837	601	422	287	1	4.4	10.5	20.1	34.1	-0.5	⊕	-1.2	-6.1	-0.2	0.6	⊕	-4.3	-13.9	-30.9	24
1.5		AE22250VP	22-250 Rem.	50	3.24	JHP	3850	3303	2819	2384	1990	1639	1645	1211	882	631	439	298	1.1	4.7	11.3	21.9	37.5	-0.4	⊕	-1.7	-7.8	0.0	0.9	⊕	-5.3	-16.8	-37.5	24
1		AE24375VP	243 Win.	75	4.86	JHP	3375	2943	2551	2191	1861	1569	1897	1443	1084	800	577	410	1.1	4.8	11.5	21.9	37.3	-0.3	⊕	-2.5	-10.5	0.3	1.3	⊕	-6.7	-20.6	-45.1	24
1		AE65GDL90VP	6.5mm Grendel	90	5.83	Speer TNT	3000	2641	2309	2002	1721	1472	1798	1394	1065	801	592	433	1.2	4.9	11.9	22.8	38.3	-0.2	⊕	-3.5	-13.6	0.7	1.7	⊕	-8.3	-25.5	-54.6	24
1		V65CRDVM95	6.5 Creedmoor	95	6.16	Hornady V-MAX	3300	3023	2763	2518	2285	2065	2297	1928	1610	1337	1101	900	0.7	3	7	13	21.4	-0.3	⊕	-2.3	-9.2	0.3	1.2	⊕	-5.7	-16.9	-34.9	24
1		AE6890VP	6.8 SPC	90	5.83	Jacketed Hollow Point	2990	2651	2335	2043	1772	1530	1786	1404	1090	834	628	468	1.1	4.6	11.2	21.2	35.7	-0.2	⊕	-3.5	-13.4	0.7	1.7	⊕	-8.2	-24.7	-52.6	24
1		V308VM110	308 Win. (7.62x51mm)	110	7.13	Hornady V-MAX	3300	2954	2635	2336	2058	1799	2660	2132	1695	1333	1034	791	0.9	3.9	9.1	17.2	28.6	-0.3	⊕	-2.5	-10	0.3	1.3	⊕	-6.2	-19	-39.9	24
1		AE308130VP	308 Win.	130	8.42	JHP	3050	2691	2359	2052	1769	1516	2685	2090	1606	1215	903	664	1.1	4.7	11.5	21.8	36.8	-0.2	⊕	-3.3	-12.9	0.6	1.7	⊕	-8.0	-24.3	-52.0	24

AMERICAN EAGLE® RIFLE

ATT	USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	MUZZLE	VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)					MUZZLE	ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)					WIND DRIFT IN INCHES TO MPH CROSSWIND					HEIGHT OF BULLET TRAJECTORY IN INCHES ABOVE OR BELOW LINE OF SIGHT IF ZEROED AT 100 YARDS, SIGHTS 1.5 INCHES ABOVE BORE LINE. AVERAGE RANGE LONG RANGE										TEST BARREL LENGTH INCHES
				GRAINS	GRAMS			100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.		100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.	50 YDS.	100 YDS.	200 YDS.	300 YDS.	400 YDS.	500 YDS.					
AMERICAN EAGLE																																		
5		AE5728A	5.7x28	40	2.59	TMJ	2250	1606	1151	942	825	735	450	229	118	79	60	48	4.4	20.2	48.0	84.7	129.1	0.5	⊕	-12.6	-51.3	3.6	6.3	⊕	-32.4	-101.1	-216.1	24
NEW		AE223G	223 Rem.	50	3.24	Speer TNT JHP	3325	2839	2402	2006	1653	1355	1227	895	640	447	303	204	1.3	5.6	13.8	27.1	46.5	-0.3	⊕	-2.8	-11.8	0.4	1.4	⊕	-7.5	-24.0	-53.7	24
5		AE223	223 Rem.	55	3.56	FMJ BT	3240	2874	2536	2222	1931	1667	1282	1008	785	603	455	339	1.0	4.3	10.2	19.4	32.7	-0.3	⊕	-2.7	-10.9	0.4	1.4	⊕	-6.8	-20.6	-44.2	24
5		AE223N	223 Rem.	62	4.02	FMJ BT	3020	2713	2426	2156	1904	1674	1255	1013	810	640	499	386	1.0	4.0	9.7	18.1	30.4	-0.2	⊕	-3.2	-12.4	0.6	1.6	⊕				

FEDERAL PREMIUM® HANDGUN

USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)					ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)				TRAJECTORY SIGHTS .9 INCHES ABOVE BORE LINE				TEST BARREL LENGTH INCHES	
			GRAINS	GRAMS		MUZZLE	25 YDS.	50 YDS.	75 YDS.	100 YDS.	MUZZLE	25 YDS.	50 YDS.	75 YDS.	100 YDS.	25 YDS.	50 YDS.	75 YDS.		100 YDS.
FEDERAL PREMIUM VITAL-SHOK®																				
2	P357SA	357 Magnum	180	11.66	Swift A-Frame	1130	1086	1049	1016	988	510	471	439	413	390	⊕	-0.9	-3.9	-8.9	6-V
2	P41SA	41 Rem. Magnum	210	13.61	Swift A-Frame	1360	1289	1224	1167	1118	862	775	698	635	582	⊕	-0.4	-2.3	-5.7	6-V
2	P44SA	44 Rem. Magnum	280	18.14	Swift A-Frame	1170	1107	1056	1013	977	851	762	693	638	594	⊕	-0.9	-3.7	-8.6	6-V
2	P454SA	454 Casull	300	19.44	Swift A-Frame	1520	1410	1311	1223	1149	1539	1324	1145	996	879	⊕	-0.2	-1.7	-4.6	5.7-V
2	P460SA	460 S&W	300	19.44	Swift A-Frame	1750	1625	1506	1397	1300	2040	1758	1510	1300	1125	⊕	0.1	-0.8	-2.8	8.4-V
3	P500SA	500 S&W	325	21.06	Swift A-Frame	1800	1677	1559	1449	1350	2338	2028	1754	1515	1315	⊕	0.1	-0.6	-2.4	8.4-V
3	P10T1	10mm Auto	180	11.66	Trophy Bonded JSP	1275	1192	1123	1067	1021	650	568	504	455	417	⊕	-0.6	-3.0	-7.2	5
2	P357XB1	357 Magnum	140	9.07	Barnes Expander	1400	1326	1257	1196	1143	609	546	491	445	406	⊕	-0.3	-2.0	-5.3	6-V
2	P41XB1	41 Rem. Magnum	180	11.66	Barnes Expander	1340	1262	1193	1134	1084	718	636	569	514	470	⊕	-0.5	-2.5	-6.1	6-V
2	P44XB1	44 Rem. Magnum	225	14.58	Barnes Expander	1280	1209	1147	1096	1052	818	730	658	600	553	⊕	-0.6	-2.8	-6.9	6-V
2	P454XB1	454 Casull	250	16.2	Barnes Expander	1530	1423	1326	1239	1165	1299	1123	976	852	753	⊕	-0.2	-1.6	-4.4	5.7-V
2	P460XB1	460 S&W	275	17.82	Barnes Expander	1670	1595	1522	1453	1388	1703	1553	1415	1289	1177	⊕	0.1	-0.8	-2.7	8.4-V
2	P500XB1	500 S&W	275	17.82	Barnes Expander	1660	1544	1435	1337	1249	1682	1455	1257	1091	952	⊕	0.0	-1.1	-3.4	8.4-V
FEDERAL PREMIUM PERSONAL DEFENSE HYDRA-SHOK®																				
6	P32HS1	32 Auto	65	4.21	Hydra-Shok	925	892	862	834	808	123	115	107	100	94	⊕	-1.8	-6.6	-14.5	4
6	P9HS1	9mm Luger	124	8.04	Hydra-Shok	1120	1070	1028	993	961	345	315	291	271	255	⊕	-1.0	-4.0	-9.3	4
6	P9HS2	9mm Luger	147	9.53	Hydra-Shok	1000	976	953	933	914	326	311	297	284	273	⊕	-1.4	-5.2	-11.5	4
6	P357S1	357 Sig	125	8.1	Hydra-Shok	1350	1266	1192	1130	1078	506	445	395	354	323	⊕	-0.5	-2.4	-6.1	4
6	P38HS1	38 Special +P	129	8.36	Hydra-Shok	950	926	904	884	865	258	246	234	224	214	⊕	-1.6	-5.9	-13	4-V
6	P357HS1	357 Magnum	158	10.24	Hydra-Shok	1240	1187	1139	1098	1063	539	494	455	423	396	⊕	-0.6	-3.0	-7.1	4-V
6	P40HS2	40 S&W	155	10.04	Hydra-Shok	1140	1079	1030	989	954	447	401	365	337	313	⊕	-1.0	-4.0	-9.2	4
6	P40HS3	40 S&W	165	10.69	Hydra-Shok	980	950	924	899	876	352	331	312	296	281	⊕	-1.5	-5.6	-12.3	4
6	P40HS1	40 S&W	180	11.66	Hydra-Shok	1000	972	946	923	901	400	377	358	340	324	⊕	-1.4	-5.3	-11.6	4
6	P10HS1	10mm Auto	180	11.66	Hydra-Shok	1030	998	970	945	921	424	398	376	357	339	⊕	-1.3	-4.9	-10.9	5
6	P44HS1	44 Rem. Magnum	240	15.55	Hydra-Shok	1210	1152	1102	1060	1024	780	707	647	599	559	⊕	-0.7	-3.3	-7.7	4-V
6	P45HS1	45 Auto	230	14.9	Hydra-Shok	900	882	865	848	832	414	397	382	367	354	⊕	-1.9	-6.7	-14.6	5
FEDERAL PREMIUM PERSONAL DEFENSE HYDRA-SHOK DEEP																				
NEW 6	P9HSD1	9mm Luger	135	8.75	Hydra-Shok Deep	1060	1026	996	970	946	337	316	298	282	268	⊕	-1.2	-4.5	-10.2	4
6	P40HSD1	40 S&W	165	10.69	Hydra-Shok Deep	100	1011	978	949	922	404	375	350	330	311	0	-1.2	-4.7	-10.6	4
NEW 6	P45HSD1	45 Auto	210	13.61	Hydra-Shok Deep	980	952	927	903	882	448	423	400	381	363	⊕	-1.5	-5.5	-12.2	5
FEDERAL PREMIUM PERSONAL DEFENSE HYDRA-SHOK LOW-RECOIL																				
6	PD327HS1 H	327 Federal Magnum	85	5.51	Hydra-Shok	1400	1306	1221	1150	1091	370	322	281	250	225	⊕	-0.4	-2.2	-5.7	4-V
6	PD380HS1 H	380 Auto	90	5.83	Hydra-Shok	1000	953	914	879	847	200	182	167	154	143	⊕	-1.5	-5.6	-12.5	3.75
6	PD9HS5 H	9mm Luger	135	8.75	Hydra-Shok	1060	1026	996	970	946	337	316	298	282	268	⊕	-1.2	-4.5	-10.2	4
6	PD38HS3 H	38 Special	110	7.13	Hydra-Shok	980	943	911	882	855	235	217	203	190	179	⊕	-1.5	-5.7	-12.6	4-V
6	PD357HS2 H	357 Magnum	130	8.42	Hydra-Shok	1410	1331	1258	1193	1138	574	511	457	411	373	⊕	-0.3	-2.0	-5.2	4-V
6	PD40HS4 H	40 S&W	135	8.75	Hydra-Shok	1200	1116	1051	999	957	432	373	331	299	274	⊕	-0.8	-3.7	-8.6	4
6	PD45HS3 H	45 Auto	165	10.69	Hydra-Shok	1060	1014	976	942	912	412	377	349	325	305	⊕	-1.2	-4.7	-10.6	5
FEDERAL PREMIUM PERSONAL DEFENSE HST®																				
6	P9HST1S	9mm Luger	124	8.04	HST	1150	1095	1049	1010	977	364	330	303	281	263	⊕	-0.9	-3.8	-8.8	4
6	P9HST2S	9mm Luger	147	9.53	HST	1000	976	953	933	914	326	311	297	284	273	⊕	-1.4	-5.2	-11.5	4
6	P40HST1S	40 S&W	180	11.66	HST	1010	980	954	930	908	408	384	364	346	329	⊕	-1.4	-5.1	-11.4	4
NEW 6	P10HST1S	10mm Auto	200	12.96	HST	1130	1051	991	943	902	567	490	436	395	361	⊕	-1.1	-4.3	-10	5
6	P45HST2S	45 Auto	230	14.9	HST	890	872	856	840	824	404	389	374	360	347	⊕	-2.0	-6.9	-15.0	5
FEDERAL PREMIUM PERSONAL DEFENSE HST MICRO																				
6	P380HST1S	380 Auto	99	6.42	HST	1030	986	948	915	885	233	213	197	184	172	⊕	-1.3	-5.1	-11.4	3.75
6	P38HST1S	38 Special +P	130	8.42	HST	890	866	844	823	803	229	217	206	196	186	⊕	-2.0	-7.1	-15.3	4-V
6	P9HST5S	9mm Luger	150	9.72	HST	900	883	866	851	836	270	260	250	241	233	⊕	-1.9	-6.7	-14.5	4
FEDERAL PREMIUM GOLD MEDAL®																				
7	GM38A	38 Special	148	9.59	LW Match	690	650	610	570	540	155	140	120	110	95	⊕	-4.3	-14.4	-31.2	4-V
7	GM45B	45 Auto	185	11.99	FMJ-SWC Match	770	740	700	670	640	245	220	205	185	170	⊕	-3.1	-10.6	-23.0	5
7	GM45A	45 Auto	230	14.90	FMJ Match	860	840	830	810	800	380	365	350	340	325	⊕	-2.2	-7.5	-16.1	5

FUSION® HANDGUN

USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)					ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)				TRAJECTORY SIGHTS .9 INCHES ABOVE BORE LINE				TEST BARREL LENGTH INCHES	
			GRAINS	GRAMS		MUZZLE	25 YDS.	50 YDS.	75 YDS.	100 YDS.	MUZZLE	25 YDS.	50 YDS.	75 YDS.	100 YDS.	25 YDS.	50 YDS.	75 YDS.		100 YDS.
FUSION																				
2	F357FS1	357 Magnum	158	10.24	Fusion	1240	1190	1140	1100	1060	540	495	455	425	395	⊕	-0.6	-3.0	-7.1	4-V
2	F44FS1	44 Rem. Magnum	240	15.55	Fusion	1290	1220	1160	1110	1070	885	795	720	655	605	⊕	-0.6	-2.7	-6.7	4-V
2	F454FS1	454 Casull	260	16.85	Fusion	1350	1270	1190	1130	1080	1050	925	820	735	670	⊕	-0.5	-2.4	-6.1	5.7-V
2	F460FS1	460 S&W	260	16.85	Fusion	1600	1500	1400	1310	1230	1480	1290	1125	990	870	⊕	-0.1	-1.3	-3.7	8.4-V
2	F500FS2	500 S&W	325	21.06	Fusion	1450	1360	1270	1200	1130	1515	1330	1170	1035	930	⊕	-0.3	-1.9	-5.0	8.4-V
2	F50AEFS1	50 Action Express	300	19.44	Fusion	1550	1451	1361	1278	1205	1600	1402	1233	1088	967	⊕	-0.2	-1.7	-4.5	6

FEDERAL® HANDGUN

USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)					ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)				TRAJECTORY SIGHTS .9 INCHES ABOVE BORE LINE				TEST BARREL LENGTH INCHES	
			GRAINS	GRAMS		MUZZLE	25 YDS.	50 YDS.	75 YDS.	100 YDS.	MUZZLE	25 YDS.	50 YDS.	75 YDS.	100 YDS.	25 YDS.	50 YDS.	75 YDS.		100 YDS.
FEDERAL POWER-SHOK® HANDGUN																				
2	C357G	357 Magnum	180	11.66	JHP	1080	1050	1020	1000	970	465	440	415	395	380	⊕	-1.1	-4.2	-9.6	4-V
2	C41A	41 Rem. Magnum	210	13.61	JHP	1230	1170	1120	1080	1040	705	640								

AMERICAN EAGLE® HANDGUN

USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)				ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)				TRAJECTORY 9 INCHES ABOVE BORE LINE				TEST BARREL LENGTH INCHES		
			GRAINS	GRAMS		MUZZLE	25 YDS.	50 YDS.	75 YDS.	100 YDS.	MUZZLE	25 YDS.	50 YDS.	75 YDS.	100 YDS.	25 YDS.	50 YDS.		75 YDS.	100 YDS.
AMERICAN EAGLE HANDGUN																				
5	AE5728A	5.7x28	40	2.59	TMJ	1655	1514	1387	1275	1179	243	204	171	144	124	⊕	0.0	-1.2	-3.8	4.8
5	AE25AP	25 Auto	50	3.24	FMJ	760	738	717	697	677	64	60	57	54	51	⊕	-3.1	-10.4	-22.1	2
5	AE32AP	32 Auto	71	4.6	FMJ	900	872	846	821	798	128	120	113	106	100	⊕	-2.0	-7.0	-15.2	4
5	AE327A	327 Federal Magnum	85	5.51	JSP	1400	1306	1221	1150	1091	370	322	281	250	225	⊕	-0.4	-2.2	-5.7	4-V
6	AE327	327 Federal Magnum	100	6.48	JSP	1500	1408	1324	1248	1181	500	440	389	346	310	⊕	-0.2	-1.6	-4.5	4-V
5	AE380AP	380 Auto	95	6.16	FMJ	980	937	899	865	835	203	185	170	158	147	⊕	-1.6	-5.8	-13.0	3.75
5	AE9DP	9mm Luger	115	7.45	FMJ	1180	1106	1048	1001	961	356	312	280	256	236	⊕	-0.9	-3.7	-8.7	4
5	AE9AP	9mm Luger	124	8.04	FMJ	1150	1095	1049	1010	977	364	330	303	281	263	⊕	-0.9	-3.8	-8.8	4
5	AE9FP	9mm Luger	147	9.53	FMJ FP	1000	976	953	933	914	326	311	297	284	273	⊕	-1.4	-5.2	-11.5	4
5	AE38S3	38 Super +P	115	7.45	JHP	1130	1067	1016	974	938	326	290	264	242	225	⊕	-1.0	-4.1	-9.5	5
5	AE357S2	357 Sig	125	8.1	FMJ	1350	1266	1192	1130	1078	506	445	395	354	323	⊕	-0.5	-2.4	-6.1	4
5	AE38K	38 Special	130	8.42	FMJ	890	870	852	834	817	229	219	209	201	193	⊕	-2.0	-7.0	-15.1	4-V
5	AE38B	38 Special	158	10.24	LRN	770	758	745	733	722	208	201	195	189	183	⊕	-2.9	-9.8	-20.7	4-V
5	AE357A	357 Magnum	158	10.24	JSP	1240	1187	1139	1098	1063	539	494	455	423	396	⊕	-0.6	-3.0	-7.1	4-V
5	AE40R2	40 S&W	155	10.04	FMJ	1160	1095	1043	1000	963	463	413	374	344	319	⊕	-0.9	-3.8	-8.9	4
5	AE40R3	40 S&W	165	10.69	FMJ	1130	1078	1035	999	967	468	426	392	365	342	⊕	-1.0	-4.0	-9.1	4
5	AE40R1	40 S&W	180	11.66	FMJ	1000	972	946	923	901	400	377	358	340	324	⊕	-1.4	-5.3	-11.6	4
5	AE10A	10mm Auto	180	11.66	FMJ	1030	998	970	945	921	424	398	376	357	339	⊕	-1.3	-4.9	-10.9	5
5	AE44A	44 Rem. Magnum	240	15.55	JHP	1230	1169	1117	1073	1035	806	729	665	613	571	⊕	-0.7	-3.1	-7.4	4-V
5	AE44B	44 Rem. Magnum	240	15.55	JSP	1270	1204	1146	1098	1056	859	772	700	642	595	⊕	-0.6	-2.9	-6.9	4-V
5	AE45A	45 Auto	230	14.9	FMJ	890	872	856	840	824	404	389	374	360	347	⊕	-2.0	-6.9	-15.0	5
5	AE45LC	45 Colt	225	14.58	JSP	860	844	828	813	799	369	356	343	330	319	⊕	-2.2	-7.5	-16.1	4
AMERICAN EAGLE SUPPRESSOR																				
5	AE9SUP1	9mm Luger	124	8.04	FMJ	1030	996	966	940	915	292	273	257	243	231	⊕	-1.3	-4.9	-11.0	4
5	AE45SUP1	45 Auto	230	14.9	FMJ	840	821	803	785	769	360	344	329	315	302	⊕	-2.3	-8.0	-17.2	5
AMERICAN EAGLE IRT																				
5	AE9N1	9mm Luger	124	8.04	TMJ	1120	1070	1028	993	961	345	315	291	271	255	⊕	-1.0	-4.0	-9.3	4
5	AE9N2	9mm Luger	147	9.53	TMJ	1000	976	953	933	914	326	311	297	284	273	⊕	-1.4	-5.2	-11.5	4
5	AE40N1	40 S&W	180	11.66	TMJ	1000	972	946	923	901	400	377	358	340	324	⊕	-1.4	-5.3	-11.6	4
5	AE45N1	45 Auto	230	14.9	TMJ	850	834	819	804	790	369	355	343	330	319	⊕	-2.2	-7.7	-16.4	5

FEDERAL PREMIUM® RIMFIRE

ATT	USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)				ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)				WIND DRIFT IN INCHES 10 MPH CROSSWIND				HEIGHT OF BULLET TRAJECTORY IN INCHES ABOVE OR BELOW LINE OF SIGHT IF ZEROED AT 50 YARDS, SIGHTS 1.5 INCHES ABOVE BORE LINE. AVERAGE RANGE		TEST BARREL LENGTH INCHES
				GRAINS	GRAMS		MUZZLE	50 YDS.	100 YDS.	MUZZLE	50 YDS.	100 YDS.	50 YDS.	100 YDS.	50 YDS.	100 YDS.	50 YDS.	100 YDS.			
FEDERAL PREMIUM GOLD MEDAL®																					
5		711B	22 Long Rifle	40	2.59	Solid	1080	994	930	104	88	77	1.1	4.2	⊕	-7.3					
8		719	22 Long Rifle	40	2.59	Solid	1200	1075	991	128	103	87	1.3	4.9	⊕	-6.0					
FEDERAL PREMIUM HUNTER MATCH™																					
8		720	22 Long Rifle	40	2.59	Match HP	1200	1075	991	128	103	87	1.3	4.9	⊕	-6.0					
FEDERAL PREMIUM V•SHOK®																					
1		P770	17 HMR	17	1.1	Speer TNT JHP	2530	2150	1804	242	174	123	0.9	3.8	⊕	-0.4					
1		P771	17 HMR	17	1.1	Hornady V-Max	2530	2194	1884	242	182	134	0.8	3.3	⊕	-0.3					
1		P765	22 Win. Magnum	30	1.94	Speer TNT HP	2200	1777	1419	322	210	134	1.3	6.0	⊕	-1.3					

FEDERAL® RIMFIRE

USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)				ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)				WIND DRIFT IN INCHES 10 MPH CROSSWIND				HEIGHT OF BULLET TRAJECTORY IN INCHES ABOVE OR BELOW LINE OF SIGHT IF ZEROED AT 50 YARDS, SIGHTS 1.5 INCHES ABOVE BORE LINE. AVERAGE RANGE		TEST BARREL LENGTH INCHES
			GRAINS	GRAMS		MUZZLE	50 YDS.	100 YDS.	MUZZLE	50 YDS.	100 YDS.	50 YDS.	100 YDS.	50 YDS.	100 YDS.	50 YDS.	100 YDS.			
FEDERAL GAME•SHOK®																				
1		716	22 Long Rifle	25	1.62	No. 12 Lead Bird Shot	-	-	-	-	-	-	-	-	-	-	-	-		
5		724	22 Long Rifle	31	2.01	CPHP	1430	1197	1046	141	99	75	1.8	7.1	⊕	-4.6				
1.5		712	22 Long Rifle	38	2.46	CPHP	1260	1110	1010	134	104	86	1.5	5.5	⊕	-5.5				
5		710	22 Long Rifle	40	2.59	CP Solid	1240	1103	1011	137	108	91	1.4	5.1	⊕	-5.6				
5		757	22 Win. Magnum	50	3.24	JHP	1530	1347	1197	260	201	159	1.2	4.7	⊕	-3.3				
FEDERAL CHAMPION™																				
5		745***	22 Long Rifle	36	2.33	CPHP	1260	1104	1003	127	97	80	1.5	5.7	⊕	-5.6				
5		AM22**	22 Long Rifle	40	2.59	Solid	1200	1075	991	128	103	87	1.3	4.9	⊕	-6.0				
5		510	22 Long Rifle	40	2.59	Solid	1240	1103	1011	137	108	91	1.4	5.1	⊕	-5.6				
5		737	22 Win. Magnum	40	2.59	FMJ	1880	1570	1311	314	219	153	1.4	5.8	⊕	-2.1				
FEDERAL RANGE & FIELD																				
5		728*	22 Long Rifle	40	2.59	Solid	1200	1075	991	128	103	87	1.3	4.9	⊕	-6.0				
1.5		730*	22 Long Rifle	38	2.46	CPHP	1260	1110	1010	134	104	86	1.5	5.5	⊕	-5.5				

*** 525-count bulk pack
** 325-count bulk pack
* 275-count bulk pack

AMERICAN EAGLE® RIMFIRE

USAGE	FEDERAL LOAD NO.	CALIBER	BULLET WEIGHT IN		BULLET STYLE	VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)				ENERGY IN FOOT-POUNDS (TO NEAREST 5 FOOT-POUNDS)				WIND DRIFT IN INCHES 10 MPH CROSSWIND				HEIGHT OF BULLET TRAJECTORY IN INCHES ABOVE OR BELOW LINE OF SIGHT IF ZEROED AT 50 YARDS, SIGHTS 1.5 INCHES ABOVE BORE LINE. AVERAGE RANGE	
			GRAINS	GRAMS		MUZZLE	25 YDS.	50 YDS.	100 YDS.	MUZZLE	25 YDS.	50 YDS.	100 YDS.	25 YDS.	50 YDS.	100 YDS.	50 YDS.	100 YDS.	
AMERICAN EAGLE																			
1	AE17WSM1	17 WSM	20	1.3	Tipped Varmint	3000	2749	2511	400	336	280	0.4	1.6	⊕	0.3				
5	AE22*	22 Long Rifle	38	2.46	CPHP	1260	1110	1010	134	104	86	1.5	5.5	⊕	-5.5				
5	AE5022	22 Long Rifle	40	2.59	Solid	1240	1103	1011	137	108	91	1.4	5.1	⊕	-5.6				
AMERICAN EAGLE SUPPRESSOR																			
5	AE22SUP1	22 Long Rifle	45	2.92	CP Solid	970	908	856	94	82	73	1.0	3.7	⊕	-9.0				

* 40-count box

FEDERAL PREMIUM SABOT SLUG

USAGE	FEDERAL LOAD NO.	GAUGE	SHELL LENGTH		SLUG TYPE	SLUG WEIGHT		VELOCITY IN FEET PER SECOND (TO NEAREST 10 FPS)						ENERGY IN FOOT-POUNDS (TO NEAREST FOOT-POUND)						HEIGHT OF SLUG TRAJECTORY IN INCHES ABOVE OR BELOW LINE OF SIGHT IF ZEROED AT 50 YARDS, SIGHTS 5 INCHES ABOVE BORE LINE. AVERAGE RANGE				TEST BARREL LENGTH INCHES	
			INCHES	MM		OUNCES	GRAMS	MUZZLE	25 YDS.	50 YDS.	100 YDS.	150 YDS.	200 YDS.	MUZZLE	25 YDS.	50 YDS.	100 YDS.	150 YDS.	200 YDS.	25 YDS.	50 YDS.	100 YDS.	150 YDS.		200 YDS.
FEDERAL PREMIUM VITAL•SHOK® TROPHY® COPPER (FULLY RIFLED SLUG BARREL)																									
2	P151 TC	12	3	76	Trophy Copper Slug	.69	300	2000	1900	1800	1620	1450	1310	2665	2400	2160	1745	1400	1135	1.3	2.6	2.9	⊕	-7.1	30
2	P152 TC	12	2¾	70	Trophy Copper Slug	.69	300	1900	1800	1710	1530	1380	1240	2405	2165	1945	1565	1260	1030	1.7	2.9	3.3	⊕	-7.9	30
2	P209 TC	20	3	76	Trophy Copper Slug	.63	275	1900	1790	1690	1500	1340	1200												